



LEEWARD ISLANDS.

Annual Report

OF THE

Departments of Agriculture

AND

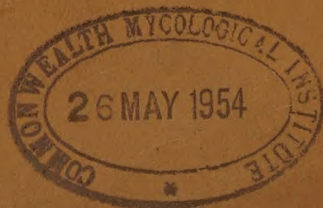
Veterinary Services

FOR THE YEAR

1952.

ANTIGUA.

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FOR THE YEAR

1952.

REPORT OF THE

COMMISSIONER OF THE

DEPARTMENT OF AGRICULTURE

FOR THE YEAR 1901

1902

PART I.

ANNUAL REPORT

OF THE

Antigua Agricultural Department

(LEEWARD ISLANDS COLONY)

FOR THE YEAR

1952

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STAFF as at 31st December, 1952.

Agricultural Superintendent	...	Vacant
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Experimental Section

Assistant Agricultural Superintendent	...	*E. R. H. MARTIN, D.I.C.T.A.
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Junior Assistant	...	†L. A. WATKINS
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Central Experiment Station

Manager	...	R. L. V. HALL
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Agricultural Assistant	...	Vacant
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Farm Foreman	...	R. FRANCIS
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Marketing and Credit

Marketing Officer	...	L. M. F. PARRIS
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Accountant	...	MC C. GEORGE, LL.B.
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Land Settlement Section

Agricultural Assistant	...	V. G. PEREIRA
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Agricultural Assistant	...	F. E. WILLOCK, B.S.A. Dip. Agric.
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Junior Assistants	...	D. S. LEWIS, C. E. WINTER
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Senior Instructors	...	J. M. A. EDWARDS, E. ROBERTS
--------------------	-----	------------------------------

Junior Instructors	...	E. C. SCHOUTEN R. A. ARRINDELL L. HODGE C. WALSH T. JOSEPH J. M. BAILEY K. PIGOTT (Acting)
--------------------	-----	--

Protection Service

Forestry and Cotton Protection Officers	...	‡R. V. CAMACHO
---	-----	----------------

J. L. RICHARDS (Acting)

Greencastle Nursery and Fruit Farm

Curator	...	§C. A. GOMEZ
---------	-----	--------------

Foreman	...	R. E. M. WHYTE
---------	-----	----------------

*Acting Agricultural Superintendent

†Acting Agricultural Assistant

‡To 31st May, 1952

§From August, 1952,

Section I

REVIEW OF AGRICULTURAL PRODUCTION

(A) ANTIGUA

(Population approximately 44,000.)

1. 1 WEATHER. The average rainfall recorded from 40 stations was 55.26 inches. This was 11.25 inches above the average (44.01 inches) for the period 1933—1952. The lowest fall (40.51 inches) was recorded at the Cotton in the North-Eastern part of the island and the highest (71.02 inches) at the Antigua Sugar Factory Ltd. also in the North-Eastern part.

Distribution was fairly good except for the fact that very heavy rains in August retarded cultivation for both cane and cotton and that December was dry.

There were no tropical disturbances during the year.

Appendices I and II give details of rainfall for 1952 and means for the period 1933—1952.

Table I.
Barometer Readings

Month	(Inches of Mercury)		Average
		<i>a.m.</i>	<i>p.m.</i>
January	...	30.732	30.186
February	...	30.677	29.935
March	...	30.283	30.468
April	...	30.345	29.905
May	...	30.351	29.957
June	...	30.458	30.008
July	...	30.041	29.993
August	...	29.996	29.957
September	...	29.899	30.171
October	...	29.90	29.88
November	...	29.87	29.84
December	...	29.91	29.91

The lowest recorded reading was 29.911 at 3 p.m. on 2nd May. The highest was 31,060 at 9 a.m. on 5th February.

(Note: Readings from January to September taken at 9 a.m. and 3 p.m. at Friars Hill. Readings from October to December taken at 7.30 a.m. and 4.30 p.m. in St. John's. These latter kindly supplied by Mr. V. Griffith.)

Temperatures recorded at the Cotton Station varied from mean maxima of 85.5°F. in August and 80.6°F. in February and December to mean minima of 76.1°F. in August and 70.1°F. in February. Average humidity at the above Station varied from 84.2% in July to 76.0% in March. Average hours of sunshine varied from 9.7 in July to 6.3 in November.

(The above data from the Cotton Station have been made available for this report through the courtesy of the Cotton Officer of the B.W.I.)

1. 2 SUGAR. The Antigua Sugar Factory Limited produced 33,684 long tons grey crystals and 1,135,897 gallons final molasses from 288,302 tons of cane ground.

The crop was started on 14th January and finished on 14th September. Labour relations during the year were satisfactory.

Montpelier Factory produced 562 long tons muscovado sugar from 6,633.7 tons of cane ground.

Approximation of the percentages of different varieties reaped in 1951 and 1952 are as follows:—

Table II

<i>Variety</i>	<i>1951</i>	<i>1952</i>
B4098	51.80	64.58
B37161	35.18	24.81
B3439	6.23	3.54
B34104	3.86	2.75
B37172	2.15	4.00
Others	0.78	0.32
	100.00	100.00

Export sugar from the Antigua Sugar Factory Limited was sold to the Ministry of Food at £35. 15s. (\$171.60) per ton c.i.f. plus £2. 15s. (\$13.20) to be held by the Antigua Government as special funds for Rehabilitation, Price Stabilisation and Labour Welfare.

The Antigua Sugar Factory Limited exported 30,859 tons of sugar valued at \$5,554,620.00 f.o.b and 1,135,897 tons molasses valued at \$193,102.00.

Non-contracting suppliers received a total of 46s. 9d. (\$11.22) per ton of cane and contractors, including contracting peasant settlements, a total of 51s. 5.03903d. (\$12.34 approx.) per ton.

The area reaped in 1952 was approximately 12,423 acres and that to be reaped in 1953, 10,975 acres.

Sugar production in 1953 was estimated at the end of 1952 at 28,000 tons grey crystals from the Antigua Sugar Factory and 650 tons muscovado from Montpelier.

Table III gives some comparative statistics concerning 1952 and the previous 10 year period. More details are given in Appendix III.

Table III

	1952	Previous ten years		
		Average	Highest	Lowest
Acres reaped	12,423	9,676	12,669 (1940)	8,525 (1944)
Total Tons Sugar	34,246	20,680	31,100 (1950)	12,525 (1948)
Tons Cane per acre	23.90	16.29	21.3 (1950)	9.8 (1940)
Tons Cane per ton sugar	8.64	8.15	9.20 (1951)	7.15 (1945)
Tons Sugar per acre	2.75	2.07	2.73 (1946)	1.10 (1940)

1. 3. COTTON. The 1951—52 crop reaped from 3,906 acres amounted to 577,773 lbs. clean lint and approximately 39,900 lbs. stains. Production in Barbuda was 4,959 lbs. clean lint.

Table IV gives some statistics covering the period under and the previous 10 year period. Table V gives grading of bales of clean lint exported to the Raw Cotton Commission during 1952, and of the four previous seasons.

Table IV.

	1952.	Previous 10 year period: 1942—1951.		
		Average.	Highest.	Lowest.
Acreage reaped—acres	3,906	2,246	4,826 (1940—41)	498 (1946—47)
Production clean lint—lb.	577,773	409,705	873,564 (1948—49)	73,530 (1942—43)
Production stains—lb.	39,900	...	...	...
Total—lb.	617,673	...	...	...
Yield per acre clean lint—lb.	147	170	253 (1945—46)	82 (1942—43)
Average price per lb. clean lint f.o.b.	\$1.113	\$0.57	\$0.8971 (1950—51)	\$0.38 (1945—46)
Price paid for clean seed cotton	\$0.29	...	...	...
Value of lint exported	*\$658,445.32	\$280,482.14	\$761,926.06 (1950—51)	\$35,300 (1942—43)

*Clean lint \$643,283.32. Stained lint \$15,162.00.

Table V.
Cotton Grading.
NUMBER OF BALES.

Season.	M.S. I. Grades.											
	G1	G2x	G2	G3x	G3	G3 ss	G4x	G4	G5x	G5	G6	Total.
1947—48		13	80	108		495						696
1948—49	48	146	392	310	1053	193	442	279	2	5	1	2,871
1949—50	27	118	354	484	1135		92	230	7	17		2,464
1950—51	240	275	1066	329	585		49	65	7	1		2,617
1951—52	78	252	513	288	324		24	74	4	3		1,560

SS—Short Staple.

(VH8) Grades

Season	V/S	S.P.1.		S.P.2.		S.P.3		Total.	
1950—51	...	1	18	3	3	1	1	23	
	MG1x	MG1	MG2x	MG2	MG3x	MG3	MG4x	MG4	MG5x
1951—52	2	62	55	63	70	30	14	4	1
									Total.
									301

The Department continued to be the sole purchaser of seed cotton and to exercise supervision of all cotton going to the gins. The entire crop of clean lint was sold to the Raw Cotton Commission. The price paid for the best grade of M.S.I. was 55 pence per lb. and for VH8, 66 pence per lb.

The price offered for the 1952—53 crop was 40 pence for grade 1 M.S.I. and 45 pence for VH8. The drop in price this crop is evidently a result of a general price decline in the cotton industry coupled with a certain amount of stock-piling of Sea Island types in the United Kingdom. Since also the imposition of a high purchase tax on goods made from Sea Island Cotton seriously reduces the potential consumption, frequent representation has been made to H.M. Government for this measure to be relaxed. No tangible results have been obtained to date.

Planting of the 1952—53 crop commenced on 15th August, 1952. The rainfall distribution was, generally speaking, fair, but unfortunately the heavy rains in August made preparation of land difficult, so that this factor reduced to some extent the acreage planted and also resulted in some late planting.

Thirteen hundred (1,300) acres were registered as having been planted in 1952 to be reaped in 1953.

Eighteen meetings of the Board of Management of the Antigua Cotton Growers' Association and four General meetings were held during the year.

1.4. **FOOD] PRODUCTION.** [There were fair amounts of locally grown vegetables available for sale in the local markets during the year.

The Marketing Department in an attempt to stimulate production of locally grown foodstuffs, with a view firstly to fill local needs as far as possible and secondly to have a surplus for export, put forward a scheme offering to purchase certain vegetables at guaranteed minimum prices as follows:—

Tomatoes (selected)	...	5c. per lb
Yams	...	2½c. " "
Sweet Potatoes	...	1½c. " "
Black-eye Peas	...	12c. " "
White and Red Beans	...	12c. " "
Onions	...	8c. " "
Pumpkins	...	1½c. " "

The above prices were fixed according to prices which it was considered likely they should be able to get in neighbouring islands for the surplus when shipped and which would enable the Department to re-sell without loss. It was also felt that in the case of many of the vegetables, the prices offered would be sufficient to yield a profit to the grower, and in others, would protect him against heavy loss in the event of the local market becoming glutted.

Eight propaganda meetings were held in different villages by Marketing Office officials, but the response was very disappointing. It is believed however, that this was due largely to heavy rain on the one hand which made preparation of land difficult, followed by a dry spell towards the end of the year. It is hoped to pursue the scheme again in 1953.

1.5. **LIVESTOCK.** The Veterinary Officer assumed duties in June. This post was created to replace in Antigua the services provided by the Chief Veterinary Officer, which Federal post was abolished during the year.

(a) **Bovine Tuberculosis.**

Under Milk Production Order No. 50 of 1950 there were four herds under supervision during the year which were subjected to tuberculin testing as follows:—

Herd No. 1.	195 animals tested—2 reactors
" " 2.	92 " " —No reactors
" " 3.	59 " " — "
" " 4.	57 " " — "

Other animals tested but not under Milk Production Order No. 50 are as follows:—

50 animals tested—2 reactors		
Percentage reactors	(herds under supervision)	0.49%
	(herds not under supervision)	4.00%

All reactors were slaughtered under supervision at the Public Market.

Although the above figures do not necessarily represent the true incidence of Bovine Tuberculosis in the island, they do indicate that with careful supervision, tuberculosis can be eradicated from the Presidency.

(b) Tropical Diseases and Parasitism.

The incidence of specific tropical diseases has not yet been determined. Bovine pyroplasmiasis is however quite often seen especially in animals that have been tick free from birth, then allowed to become tick infested. Several cases were treated this year, all cases occurring in animals released from the Central Experiment Station to peasants. Parasitism probably causes the highest economic loss to our livestock industry, due chiefly to—

- (a) death before maturity
- (b) extreme emaciation
- (c) condemnation of carcasses and of portions of carcasses

(c) Breeding Problems.

The work started by Dr. L. R. Hutson, D.V.S. and Mr. S. L. Hignett, M.R.C.V.S., was carried on. Blood samples were collected and forwarded to Weybridge for Calcium Phosphorus determination in connection with certain infertility problems encountered at the Central Experiment Station.

(d) Communicable Disease Control.

Following an outbreak of Foot and Mouth Disease reported from Martinique, control measures were enacted and rigidly enforced to keep this dreaded disease from gaining entrance into this Presidency. The Veterinary Officer attended a conference in Trinidad to discuss the control of this disease on a local as well as on a regional basis. The disease did not appear in Antigua, and was subsequently reported as being eliminated in Martinique.

(e) Livestock Legislation.

The following were enacted during the year:—

1. S. R. & O. No. 14 of 1952—Importation of Animals (Carcase and Feed) (Prohibition) Regulations 1952.
2. S. R. & O. No. 15 of 1952. Importation of animals (Alberta Saskatchewan, Manitoba) Regulations 1952.
3. S. R. & O. No. 30 of 1952—Importation of animals (Alberta, Saskatchewan, Manitoba) (Revocation) Regulations 1952.
4. S. R. & O. No. 37 of 1952—Landing of Animals (Prohibition) Order 1952.
5. S. R. & O. No. 38 of 1952—Landing of Animals (Prohibition) Regulations 1952.

(B) BARBUDA.

1.7. No officer of the Agricultural Department is stationed there. The Department of Agriculture functions in an advisory capacity only.

The following notes are extracted from the Report of the Warden, Mr. C. E. Greenaway:—

RAINFALL—A total of 47.70 inches of rain was recorded for the year. The weather was very dry during the first half of the year, during which period only 9.95 inches of rain fell. There was in consequence a shortage of green vegetables. Generally speaking, distribution of rain fall was extremely uneven.

COTTON—A total of 15,293 lbs. clean seed cotton was purchased at the Government Cotton Ginnery at a first payment of 20 c. per lb. 138 peasants planted an estimated 50 acres. Yield of clean lint amounted to 4,959 lbs. A final payment of 8.94 c. per lb. was made, bringing the total price paid to 28.94 c. per lb. This amounted to \$4,425.79 paid out.

PEANUTS—As a result of the very good crop reaped in 1951, every effort was made to increase production in 1952. Heavy rains in November and December however caused much swamping and heavy losses. Ten thousand three hundred (10,300) lbs., which represented the bulk of the crop was sold to the Marketing Department, Antigua, at 26 c. per lb.

SEA-WEED—A sample of sea-weed was sent to Messrs. Whitbread & Co., England, for identification. A further sample was despatched to the Scottish Seaweed Research Association, Scotland, for testing chemically. No reply has been received from the latter, but Messrs.

Whitbread & Co., replied that they would be interested in commercial quantities. It is doubtful however whether it can be collected economically.

CHARCOAL—More people are engaged in charcoal burning than in any other industry. The coal is exported regularly to Antigua and occasionally to St. Kitts.

PEAS AND BEANS—A record crop was reaped. The bulk was sold in Antigua at prices ranging from 12 c. to 14 c. per lb.

LOANS FOR PEASANT DEVELOPMENT—Of \$1,029.00 issued in 1951 to assist in the cultivation of cotton, a little over \$700.00 was repaid in 1952.

GOVERNMENT ANIMALS—Both the Stallion and the Jack kept at the Homestead for service, died during the year. It is clear that it is essential for Barbuda to keep a good Jack, since mule breeding forms a very important part of the livestock policy of the island. A Zebu bull and a ram sheep are allowed to run with the animals of the island. They are however inspected regularly by Government Rangers and are brought in for attention if necessary.

The table hereunder gives a list of exports from Barbuda (chiefly to Antigua to during 1951 and 1952).

Table VI.

Commodity,	1951.		1952.	
	Quantity.	Value. \$	Quantity.	Value. \$
Seed Cotton (lbs.)	18,752	4,725	15,293	4,425
Charcoal (bags)	7,584	7,000	5,273	6,000
LIVESTOCK:				
Cattle	56	3,360	48	4,800
Sheep	159	954	174	1,044
Goats	218	872	457	1,800
Pigs			13	400
Horses	4	160	4	160
Mules	8	1,040	6	1,080
Donkeys	9	90	25	500
Peanuts (lbs.)	15,000	3,926	10,300	2,678
Misc. Agric. Produce		864		3,039
Brooms (bundles)	721	1,038	710	1,032

Section 2.

AGRICULTURAL STATIONS.

A. FRIARS HILL.

2.1. GENERAL. At the end of 1952, it became evident that, provided the Station continues to be run on existing lines, and that there are no serious set-backs, it should be capable of running itself without financial assistance from C. D. & W. Funds in 1953.

The fact however must be squarely faced that, with the exception of provision in the local estimates for the running of some crop trials superimposed on commercial fields and the maintaining, at cost to the station, of a herd of cattle for fundamental and important work on breeding and selection, the Station is now little more than an estate on which the commercial aspect is stressed rather than the pursuit of agricultural knowledge. The fact also that for over a year the officer previously engaged on agronomical work has been required to act in a different capacity without relief has further contributed to a reduction in crop investigational work.

Sugar cane was the main crop grown, but 21 acres were planted in the VH8 strain of Sea Island Cotton (1952—53 crop), and 44 acres were reaped for the 1951—52 crop. Pastures were maintained, and vegetable seedlings—tomato and onion in particular—grown with the assistance of funds provided in the local estimates, were sold.

2.2. ESTABLISHMENT OF CROPS. Heavy rains in August, coupled with slow reaping of the cane crop and with mechanical trouble with our tractors made preparation of land for planting very difficult. Thanks however to the assistance given to the Station by the loan of a tractor by the Federal Engineer's Department, and due also to very determined efforts on the part of management, our target of 70 acres for re-planting was realised. It is believed that no other cane-growing concern achieved their re-planting target in 1952.

Rainfall during the year was above average, and this, following a wet 1951 resulted in good growing conditions, although in some instances haulage tractors were unable to get into the cane fields. Rainfall in inches for the past five years was as follows:—

1948.	1949.	1950.	1951.	1952.
34.69	48.86	46.77	61.46	52.35

2.3. LAND USAGE. The following table shows the agricultural utilisation on the Station for the year:—

	<i>Acres.</i>
Commercial Cane	156·00
Cane Nurseries and Experiments	16·00
Cotton	44·00
Commercial Food Crops	5·00
Vegetable Garden and Nurseries	1·80
Fodder Crops	4·05
Hay	12·00
Paddocks	133·21
Scrub-Bush Paddocks and Hill Tops	166·94
Fallow	9·00
Cotton Station	34·00
Prison Garden	18·00
	600·00

2.4. LIVESTOCK.

(a) CATTLE. In the light of experience gained, and on the advice of the Veterinary Officer, certain changes in the breeding policy of cattle have been made. It has been found that the wisdom of concentrating on the breeding of $\frac{3}{4}$ Red Poll x $\frac{1}{4}$ Nelthropp is questionable, and the breeding of pure Nelthropps is again being followed for the present time. It is worthy of note that this policy is somewhat in line with that originally planned.

Maintenance of the grazing areas continued to be very costly to the Station, and pastures are as a result not being kept as clean as they should be.

Twelve (12) Red Poll x Nelthropp crosses have been milked. Lactation figures are given below:—

Table VII.
COMPLETE LACTATION FIGURES 1951—52.

<i>Name of Cow.</i>	<i>Period of Lactation, Farm — To</i>		<i>Number of Lbs. of milk, days in milk produced.</i>	
Duchess	13—7—51	23—2—52	225	3,415
Beryl No. 2	25—7—51	23—2—52	213	1,938
Bertha No. 2	28—7—51	4—6—52	311	5,360
Princess	14—9—51	6—3—52	174	2,591
Diana	21—9—51	4—7—52	287	3,596
Celia	5—10—51	3—8—52	303	5,472
Star	16—10—51	6—3—52	142	1,782
Anna	3—11—51	28—2—52	117	1,472
Enid	13—11—51	24—8—52	285	5,204
Delores	24—11—51	10—10—52	321	6,428
Dora	22—11—51	24—10—52	337	4,201
Cherry	30—12—51	17—9—52	262	3,847

(b) *Horses*. The two pure bred Light Draught French Canadian animals Red Cap and Nelly continue to keep well. The mare gave birth to a filly during the year and was returned to the pure bred stallion.

The two local brood mares served by Red Cap, gave birth to two colts during the year. One of the mares was then put to the Jack and the other returned to Red Cap.

Two half-bred French Canadian brood mares produced two mule foals during the year.

(c) *Donkeys*. A pure-bred Jack, Dan Kiger, was maintained in good condition and has been used on both mares and jannets. Captain, a $\frac{3}{4}$ -grade Jack was brought into service during the year for the first time.

(d) *Sheep*. The pure-bred Blackhead Persians continue to give satisfactory results. They are in fair demand locally. Pure bred and high grade ewes tend to produce single lambs. It has been decided in consequence to dispose of our entire grade flock as the grading had become rather too high. Arrangements have been made to obtain native ewes for the raising of half breeds, after which two distinct flocks will be maintained—one pure for breeding purposes and the other half-breeds.

(e) *Goats*. The British Alpine pure-breds and grades continue to do well and the demand for these animals for use as milch goats is increasing.

(f) *Pigs*. Five litters of Berkshire pigs were farrowed during the year. The total number of piglets born was 39, of which 12 died and 20 were sold.

2.5. NUMBER AND SEX OF ANIMALS MAINTAINED DURING THE YEAR.

Cattle.

Pure Bred Red Poll Bulls	...	2
$\frac{1}{8}$ Red Poll $\times$ $\frac{1}{8}$ Senegal Bulls	...	2
$\frac{3}{4}$ " " $\times$ $\frac{1}{8}$ " Heifer Calves	...	1
$\frac{3}{4}$ " " $\times$ $\frac{1}{4}$ " Bulls	...	2
$\frac{1}{2}$ " " $\times$ $\frac{1}{2}$ " Bulls	...	1
$\frac{3}{4}$ " " $\times$ $\frac{1}{4}$ " Cows	...	13
$\frac{1}{2}$ " " $\times$ $\frac{1}{2}$ " Cows	...	15
$\frac{3}{4}$ " " $\times$ $\frac{1}{4}$ " Heifers	...	13
$\frac{3}{4}$ " " $\times$ $\frac{1}{4}$ " Heifer Calves	...	9
$\frac{3}{4}$ " " $\times$ $\frac{1}{4}$ " Full Calves	...	15
$\frac{3}{4}$ " " $\times$ $\frac{1}{4}$ " Steer	...	1
		74

Horses.

Pure Bred Stallion	...	1
" " Brood Mares	...	2
Native Brood Mares	...	4
" Fillies	...	1
Pure Bred Fillies	...	1
Native Colts	...	2
		11

Mules

4

Donkeys.

Pure Bred American Jack	...	1
" " "	...	2
" " Jenny	...	1
Grade " "	...	1
		5

Sheep.

Pure Bred Blackhead Persian Rams	...	2
" " " " Ewes	...	7
" " " " Ram Lambs	...	8
" " " " Ewe "	...	1
Grade Ewes	...	3
" " Lambs	...	1
		22

Goats.

British Alpine Bucks	...	2
" " Does	...	2
Native Does	...	1
Female Kids	...	11
Male "	...	1
		17

Pigs.

Sows (Berkshire)	...	2
Gilts "	...	1
Boars "	...	7
		10

2.6 ANIMALS SOLD.

Cattle	...	8 Cows, 1 Heifer, 2 Heifer calves, 4 Bull calves, 1 Steer
Sheep	...	43 Ewes & ewe lambs, 28 Rams & ram lambs
Goats	...	14 Does, 9 Bucks
Pigs	...	11 Gilts, 9 Boars, 1 Sow

2.7. **STUD SERVICES.** The following services were rendered:—

<i>Stud Animals.</i>	<i>No. of Services.</i>
Canadian Stallion	... 12
American Jack	... 39
Grade Jack	... 13
Berkshire Boar	... 22

2.8. **SUGAR CANE.** The following table shows the yields of cane obtained on the Station in 1952.

TABLE VIII.

<i>Crop.</i>	<i>Acres.</i>	<i>Tons Cane.</i>	<i>Yield: tons cane per acre.</i>
Plants	74	2,604	35.1
1st Ratoons	77	1,585	20.5
Other Ratoons	5	64	12.8
	156	4,253	

Four thousand, two hundred and fifty-three (4,253) tons of cane were reaped from 156 acres, yielding an average of 20.26 tons per acre. This, under the conditions which existed, is considered very satisfactory.

2.9. **COTTON.** For some years now, there have been indications that a somewhat finer grade of cotton with a longer staple might find a more ready market in the United Kingdom than the M.S.I. types we have been growing in Antigua. The Cotton Research Station has accordingly developed a type—the VH8—which it is hoped may prove to be acceptable to the trade.

This Station, together with the estates planting cotton have been growing the VH8 type so as to provide spinners with adequate amounts of lint for testing, and to secure sufficient seed so that both Antigua and Nevis can, if the market so indicates, plant this variety on a commercial scale.

Forty-four acres of the 1951-52 crop were reaped on the Station, yielding 35,142 lbs. of seed cotton *i.e.* approximately 799 lbs. per acre. Twenty-one acres of VH8 were re-planted in September.

2.10. **HAYMAKING.** Mechanical trouble with our tractors plus the fact that for the past two years we have stored large quantities of hay, much of which remains unused as grass has been plentiful, resulted in no hay being cut and stored this year. It is proposed to feed cane tops to the stock next year, of which there will be plenty during crop.

2.11. **BUILDINGS.** The stockman's house, which has been unsafe for sometime owing to cracked walls and sunken foundations, was completely re-built. The design has been changed from one large building capable of housing two families, to two separate houses.

The Cow Shed which was damaged by the hurricane of 1950 is still in need of repairs.

2.12. **WATER SUPPLIES.** Since reverting in 1951 to pond water in preference to well water, which is high in calcium, the pond has been the main source of water supply to the stock.

2.13. **FENCING.** No new paddocks were built during the year. A gang of three men are more or less kept continually employed on the maintenance of existing fencing.

2.14. **FOOD CROPS.** The area under food crops has been reduced in favour of increased acreage put in sugar cane. This latter is considered, at present guaranteed prices, to offer a more certain financial return than food crops. No field trials with food crops were laid down during the year.

Food Crops harvested in 1952:—

TABLE IX.

<i>Crop.</i>	<i>Acres.</i>	<i>Yield.</i>	<i>Yield per acre.</i>
Yams	3.00	4 tons	3,017 lbs.
Corn (Maize)	21.00	21 tons	1,000 lbs.

Cuttings and Seedlings sold:—

TABLE X.

Cane cuttings	221,000
Onion seedlings	961,000
Cauliflower seedlings	750
Beet	10,750
Cabbage	32,100
Eggplant	825
Tomato	885,000

B. Greencastle Nursery & Fruit Farm.

2.15. **GENERAL.** This sub-station of 32 acres, situated on one of the best soil-types in the island and in the wetter section, has been gradually falling into disuse. The hurricane of 1950 damaged many of the fruit and ornamental trees severely, as well as the propagation sheds.

A determined step was taken during the year to try and renovate the Station. A full-time Curator was appointed and the local Government advanced sufficient funds to enable a comprehensive plan prepared by the Department of Agriculture to be commenced. It is firmly believed that this station, by providing planting material of ornamental shrubs and trees, by growing fruit in commercial quantities and providing planting material of these also, and by the growing of vegetables for the local market and the selling of vegetable seedlings, will fill a real need in

community. It is the aim of the Department eventually to run the station on a self-supporting basis. It is clear however that at the present time, heavy expenditure on housing, fencing, cultivation and general clearing up of the area will have to be undertaken.

Up to the end of 1952, work was started on repairing of fences, planting of live fences, cultivation of old grass plots, planting of vegetables and extension of propagation sheds for ornamentals. Much new planting materials, particularly of ornamentals, has been obtained, and large numbers of cuttings have been set.

2.16. BUILDINGS. A small field office with a potting shed was erected.

2.17. FRUIT TREE NURSERIES. Fresh seed-beds of mango and durian orange have been planted.

2.18. VEGETABLE NURSERIES. Much work on vegetable nurseries could not be undertaken this year as the land could not be prepared in time.

2.19. PLANT DISTRIBUTION. The following were distributed during the year:—

Vegetable Seedlings	44,623
Cane plants	16,500
Julie mango plants	268
Citrus plants	84
Avocado plants	24
Breadfruit plants	1,087
Miscellaneous economic plants	686
Decorative shrubs	1,700
Decorative trees	646
Gliricidia cuttings	1,200

2.20. ARBOR DAY. The Station provided many of the trees for planting on Arbor Day (6th November) free of costs. Seeds were planted for this purpose much earlier in the year and before the station was being run on revised lines.

2.21. VEGETABLE GARDEN. Small plots of String Beans, Tomatoes, Carrots, Cabbage, Cauliflowers and Beets were planted. The produce was sold readily.

2.22. ORCHARDS. These consist mainly of Julie Mangoes and assorted Citrus. Weeding was carried out around the trees, and a dressing of inorganic manures was applied to each tree. Two plots of various types of bananas were planted.

Section 3. SUGAR CANE INVESTIGATION.

3.1. This work, sponsored by the Antigua Sugar Cane Investigation Committee, is undertaken in collaboration with the Department of Agriculture. The Department provides the senior supervising staff and to some extent establishes and maintains nurseries of new varieties. This year, all of the formal trials and observation plots were conducted on estates throughout the island.

The following formal trials were reaped during the crop season of 1952:—

Type of Experiment	Plants	1st Ratoons	2nd Ratoons	3rd Ratoons
Variety Trials	10	3	7	1
Time of Planting	3	1	1	—
Size of Dressing of				
Sulphate of Ammonia	5	3	—	—
Permanent Manurial	—	1	1	—
Potash	—	1	—	—
	<u>18</u>	<u>9</u>	<u>9</u>	<u>1</u>

The following information is extracted from the report of the Sugar Cane Investigation Committee entitled "Antigua Experimental Scheme—Preliminary Study of Yield Data from Experiments reaped in 1952 by P. E. Turner, E. R. H. Martin, and L. A. Watkins."

SUMMARY AND RECOMMENDATIONS.

"Size of Application of Nitrogen and Phosphate.

"Pending further investigation, applications of artificial manures should continue to be made as in recent years. The dressings are summarised in the following table:—

Soil Type	Plants		Each Ratoon	
	S.A.	Super*	S.A.	Super
	(Cwt/acre)	(Cwt/acre)	(Cwt/acre)	(Cwt/acre)
" Fitches clay	2	1	3	1
" Wetherill clay	2	1	2	1
" Blubber Valley				
" light loam	3	1	3	1
" Gunthorpe clay	2	1	3	1
" Tomlinson clay	2	1	2	1
" Lindsay clay	2	1	3	1
" Otto clay	2	1	3	1
" Bendal clay	3	1	3	1
" Blubber Valley				
" heavy loam				
" and clay	3	1	3	1

" * 18% water soluble P_2O_5 .

"To ensure maximum gain in yield of plant cane, it is essential for the artificial manures to be applied within a week of planting on Wetherill and Fitches clays, whatever the rainfall.

"The artificial manures must be applied within a week of planting on the remaining soil types unless heavy rain waterlogs the soil during this period. In such cases, the artificial manures should be applied three to four weeks after planting.

"The artificial manures should be applied to ratoons in the dry season before the rains begin.

"If there are good rains in May or April, an extra one cwt. of sulphate of ammonia can be applied during these months to the young plants with advantage.

"RECOMMENDATIONS FOR PLANTING (% VARIETIES) IN
"1951 AND 1952.

Soil Type	1951					1952		
	B4098	B37161	B41227	B37172	B34439	B4098	B37161	B41227
Wetherill clay	100					: 100		
Fitches clay	100					: 100		
Blubber Valley						:		
light loam	25	25	25	25		: 50	25	25
Gunthorpe clay	100					: 100		
Tomlinson clay	100					: 100		
Otto clay	100					: 100		
Bendal clay	100					: 100		
Blubber Valley						:		
heavy loam								
and clay	75			25		100		
York clay	50				50	100		
Ffryes clay	50	50				50	50	
Nurseries —	B43237—Wetherill clay							
	B46144—Lindsey clay							
	B45151—Otto clay							

"Recent experiments indicate that planting earlier than in November may be undertaken to advantage as indicated in the following table:—

Fitches clay (wetter areas)	Middle September	B4098
Fitches clay (areas of average rainfall)	Early October	B4098
Blubber Valley light loam	Middle October	B4098
Ffryes clay	Late September or October	B37161
Gunthorpes clay (wetter areas) *	Late September or October	B4098
Bendal clay	Late October	B4098

* Based on results of one experiment only

Section 4.

EXTENSION AND DEVELOPMENT WORK.

4.1. GENERAL. No changes in the general organisation of this section were made during the year. The work of the Section continued to increase as more small cultivators on private estates were accorded many of the facilities provided for the Government Settlement Areas.

4.2. LAND SETTLEMENTS. (Given hereunder is a list of all the "Settlement" areas with which the Department of Agriculture and the Land Settlement and Development Board are concerned:—

		<i>Total Area (Acres).</i>	<i>Total Arable Area Occupied.</i>	<i>No. of Allot- ments.</i>	<i>Principal Feeder Village or Town.</i>
1.	Clare Hall	... 226	226	126	Clare Hall, St. John's St. Johnston's Village
2.	Skerrets	... 100	61	19	St. Johnston's Village
3.	Sawcolts	... 233	138	70	Sawcolts, Swetes
4.	Wallings	... 430	134	39	Wallings, Sawcolts
5.	Piccadilly	... 3,000 (approx.)	853	499	English Harbour, Liberta, Falmouth, Bethesda
6.	Matthews	... 729	445	165	All Saint, Swetes, Buckleys
7.	Jonas	... 261	147	108	Freemans, All Saints, Pares,
8.	Greencastle (1)	... 544	491	99	Grays Farm, Grays Hill, Hamilton, St. John's
9.	The Folly	... 22	20	22	Swetes, The Folly
10.	Mannings	... 250	86	51	Freetown, Newfield
11.	Sheriffs	... 240	—	—	
12.	Indian Town	... 22	—	—	
13.	Coconut Hall	... 257	160	109	Parham, Seatons
14.	Southern Settlements	... 1,712	462	269	Old Road, Urlings
15.	Northern Settlements	... 518	363	283	Cedar Grove, St. John's
16.	Rooms				
17.	Comfort Hall	... 851	357	298	Willikies, Seatons
18.	Brecknocks	... Unsurveyed	51	40	Sawcolts, Hamilton
19.	Belvidere, Green- castle (2) etc	1,635	822	432	Gray Hill, Grays Farm, St. John's
20.	Orange Valley	... 707	221	131	Crab Hill, Johnson's Point, Bolans
21.	Glanvilles	... 256	182	124	Seatons
22.	Matthews Extension	... 35	30	29	Swetes
23.	Christian Valley	... 679	210	102	Bolans, Jennings
24.	U.S. Army Base Area	Unsurveyed	214	98	Cedar Grove, Pigotts
25.	U.S. Navy Base Area	Unsurveyed	46	18	Parham, Pares Village
Total		... 12,707	5,719	2,931	

4.3. **SETTLEMENT BUILDINGS ETC.** Settlement buildings were maintained during 1952. Fairly extensive repairs were done to Settlement roads, drains and culverts which were damaged by heavy rains.

4.4. **TRACTOR PLOUGHING ON SETTLEMENTS.** Owing to very heavy rains in August, only 160 acres were tractor ploughed on Settlements during the year.

4.5. **SETTLEMENT COMMITTEES.** These Committees continue to function in an advisory capacity at Belvidere and Greencastle, Matthews and Jonas, Southern Settlements, Northern Settlements, Coconut Hall, Glanvilles, Rooms and Comfort Hall.

Nine General and thirty-one Committee meetings were held during the year.

4.6. **THE U.S. BASE AREAS.** These areas are leased to the United States Government for military purposes. The lease is for 99 years starting from 1941. With the cessation of hostilities in 1945 however, permission was eventually obtained in 1952 from the United States for the areas to be cultivated. A manager was appointed to the areas and survey work coupled with the marking out of cultivation plots was started during the year.

It has been decided that, provided suitable fencing can be set up, those portions of the area not required for other puposes but otherwise suitable for stock-raising should be utilised in this manner. Up to the end of 1952, 260 acres (116 plots) had been allocated. The approximate average plot size is three acres.

4.7. **SOIL AND WATER CONSERVATION.** Contour bunds were laid down under the direction of the Senior Instructor responsible for soil conservation work. A total of 452 acres were dealt with during the year as follows:—

Settlement Areas	272 acres
Central Experiment Station	6 "
Sugar Estates	78 "
Peasants' Land off Settlements	96 "
	452 "

Work for the most part consists of putting in earth bunds at 6—foot vertical intervals and planting the same with Vetivier or Guinea grass. In stony areas, stone bunds were used. Graded head drains were put in where necessary.

4.8. **MOBILE CINEMA UNIT.** A total of 37 educational shows were given during the year. At 33 of these, films of agricultural interest were shown.

4.9. **ESTATE AGRICULTURE.** The normal liaison between the Department of Agriculture and most of the estates of the island through the Sugar Cane Investigation Committee, the Antigua Cotton Growers Association, and the Agricultural and Commercial Society, was maintained.

The scheme for the Rehabilitation of Estate Agriculture was non-operative during the year. Repayments during the year totalled \$12,988.96, and since the commencement of the Scheme \$76,455.99.

4.10. **FOREST CONSERVATION.** A Forestry Protection service was maintained during the year. Unfortunately only one Officer was in post for much of the time, but part-time rangers were engaged as usual.

There were 29 convictions during the year for breaches of forestry regulations. Fines varying from \$1.20 to \$6.00 were imposed.

4.11. **COTTON PROTECTION.** This work is carried out by the same staff as are responsible for Forest Conservation. The Cotton Close Season was enforced from 16th May to 14th August.

There were 208 convictions for breaches of the cotton protection ordinance. Fines varied from \$1.20 to \$10.00.

4.12. **LIVESTOCK IMPROVEMENT.** The Veterinary Officer is preparing a comprehensive programme for livestock improvement and development, and this will be put before Government for consideration in due course.

4.13. **PLANT NURSERIES.** In addition to nurseries at Friars Hill and Greencastle, cane nurseries were maintained at Cades Bay, Orange Valley and Matthews, and vegetable seedlings were grown for distribution at Piccadilly.

4.14. **BOARDS, COMMITTEES, CONFERENCES.** During the year the Acting Agricultural Superintendent served on the following:—

1. As Chairman of the Land Settlement and Development Board
2. As Chairman of the Sugar Cess Rehabilitation Fund Committee
3. As Secretary of the Antigua Agricultural and Commercial Society
4. As Secretary-Treasurer of the Antigua Cotton Growers Association
5. As Secretary-Treasurer of the Antigua Sugar Cane Investigation Committee.

The Agricultural Assistant (Credit) served as a member of the Industrial Development Board. The Agricultural Assistant (Land Settlements) served as a member of the Antigua Sugar Association and of the Small Farmers Cultivation and Haulage Board.

The Acting Agricultural Superintendent attended a meeting of the Provisional Governing Body of the Eastern Caribbean Farm Institute in Trinidad. The Veterinary Officer attended a Conference of Veterinary Officers in Trinidad.

Section 5.

MARKETING AND CREDIT

5.1. GENERAL. The following table indicates the total volume of business done by this section and the large increases which have taken place in recent years:—

TABLE XI.

MARKETING ORGANISATION—FINANCIAL SUMMARY.

1948—1952.

(\$'000s)

<i>Activity.</i>	<i>1948.</i>	<i>1949.</i>	<i>1950.</i>	<i>1951.</i>	<i>1952.</i>
Loans issued under Head VII	... 24	54	116	155	298
Loans and Interest recovered including C. D. & W. Schemes	... 14	34	70	109	167
Cane Payments (Head VII (3) (4))	... 96	163	240	254	372
Cotton Payments (Head VII (3) (3))	... 15	227	510	574	502
Government Marketing Depot Turnover	... 6	15	12	12	35
Packing Materials store purchased	... —	—	5	4	7
Marketing Commission & Fees received	... 4	20	33	37	38
Rents collected	... 5	7	12	10	14

5.2. CREDIT. The Section, on the recommendation of field officers of the Department, continued to provide credit facilities for the small farmer under the same terms and conditions as in the previous year. Since 1951, the service has been extended to include all peasants, the various landlords having first given an undertaking to collect loans on behalf of Government.

During the year, a total of \$298,226.92 was issued to 6,686 applicants.

Interest at half cent per dollar per month collected during the year was \$6,963.16.

Following is a comparative table showing Loans Issued from 1942 to 1952.

TABLE XII.

<i>Year</i>	<i>Amount in Dollars</i>	<i>No. of Loans Issued</i>	<i>No. of Loans per Instructor</i>
1942	2,352	Not known	—
1943	3,384	336	—
1944	5,539	Not known	—
1945	9,252	Not known	—
1946	24,465	853	122
1947	42,456	1,317	188
1948	28,198	1,897	271
1949	53,455	3,276	467
1950	120,922	3,980	442
1951	154,707	4,645	516
1952	298,226	6,686	743

5.3. CANE. The following tables show the tonnages of cane dealt with by the Section since 1949 and also details of tonnages dealt with in 1952:—

TABLE XIII.

<i>Year</i>	<i>Tonnage</i>
1949	19,011
1950	28,816
1951	24,857
1952	35,185

TABLE XIV.

1952 Crop.

<i>Settlement</i>	<i>Tonnage</i>	<i>Gross Proceeds</i>
		\$
Belvidere	... 8678.9868	92803.33
Cades Bay	... 1317.9313	13568.79
Clare Hall	... 2100.6564	22171.25
Coconut Hall	... 1304.4609	13711.26
Glanvilles	... 1743.4375	18652.13
Golden Grove	... 1493.6125	15313.02
Greencastle	... 5189.7257	56420.12
Jonas	... 1638.7750	18142.43
Marble Hill and McKinnons	... 3002.1723	31439.95
Mill Hill and Follies	... 501.0750	5245.62
Mannings	... 409.5125	3532.82
Matthews	... 2783.0751	30454.80
Orange Valley	... 1696.7960	18545.74
Piccadilly	... 566.1724	5866.77
Rooms and Comfort Hall	... 1675.8041	17777.86
Sawcolts	... 1082.9742	11276.51
	35185.0777	374922.40

5.4. STATEMENT OF MARKETING OFFICE TRADING ACCOUNT, 1952.

	Expenditure during the year plus stock in hand at the begin- ning of the year.	Revenue during the year plus stock in hand at the end of the year.	Surplus	Deficit
	\$	\$	\$	
Cotton	502369.24	502542.45	173.21	—
Canes	372831.07	374921.79	(a)2090.72	—
Fruit and Vegetables	10810.12	12233.37	1423.25	—
Corn	512.24	952.03	439.79	—
Seeds	2641.93	3138.74	496.81	—
Insecticides & Fertilizers	20741.16	24587.33	(b)3846.17	—
Packing Materials	12809.89	13391.95	(c) 582.06	—
	<u>922715.65</u>	<u>931767.66</u>	<u>(d)9052.01</u>	<u>—</u>

(a) Includes vouchers unpaid at end of 1952, paid in 1953.

(b) Includes cost of Fertilizers issued as loan in 1951 and paid for in 1952.

(c) Differs from Annual Statement by 29c. being value of goods written off.

(d) Does not include Marketing Commission.

MARKETING COMMISSION—1952.

Cane	....	9373.06
Cotton	....	25108.38
Insecticides & Fertilizers	....	941.40
Fruit and Vegetables	....	551.24
Corn	....	47.60
Seed	....	132.93
		<u>36154.61</u>

Section 6.

COLONIAL DEVELOPMENT AND WELFARE SCHEMES.

6.1. SCHEME D. 1374. This scheme makes provision for the maintenance of services to Small Farmers including instructional and supervisory staff on Settlement Areas.

It was hoped that it might be possible to carry this expenditure on the local budget in 1952, but this could not be arranged.

Expenditure during 1952 amounted to \$36,614.00 and since the inception of the scheme (April 1st, 1950) \$103,132.00.

6.2. SCHEME D. 1448 This scheme enabled the Central Experiment Station at Friars Hill to balance its deficit of expenditure over revenue for the years 1951 and 1952.

6.3. SCHEME D. 1701. This scheme provides for the conducting of a Land Utilisation Survey. Only very small expenditure was incurred during 1952 since the preliminary work consists of the preparation of large-scale maps by Dr. Callow of the World Land Use Organisation in England. The maps are to be prepared from aerial photographs which were taken by the U.S. Air Force in 1941. As soon as these maps are received, it is proposed to proceed with the necessary field work.

Section 7.

The following legislation affecting Agriculture was enacted during 1952—

(i) Ordinance No. 3 of 1952. The Small Farmers Cultivation and Haulage Service (Amendment) Ordinance

Ordinance No. 17 of 1952. Forestry (Amendment) Ordinance

Ordinance No 19 of 1952. Agricultural Small Holdings (Regulation of Rentals) Ordinance

(ii) S. R. & O. No. 15 of 1952. Plant Protection (Amendment) Regulations

S. R. & O. No. 42 of 1952. The Forestry (Amendment) Regulations

(iii) Ephemeral Orders covering the cotton close season.

E. R. H. MARTIN,
Acting Agricultural Superintendent.

APPENDIX I. RAINFALL IN ANTIGUA—1952.

No.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1.	Antigua Sugar Factory	3.76	2.57	4.41	4.05	8.84	6.14	6.80	10.05	8.74	6.38	7.60	1.68	71.02
2.	Bettys Hope	2.40	2.06	3.03	2.40	6.67	2.59	4.78	8.13	6.75	4.99	6.46	.57	50.83
3.	Blackmans	2.69	1.52	1.99	2.71	5.25	5.22	5.44	5.44	7.31	5.80	6.82	1.39	54.29
4.	Blakes	3.27	1.80	3.08	2.38	3.92	4.08	5.66	7.17	2.85	4.67	7.01	1.13	47.02
5.	Blubber Valley	3.30	1.13	3.39	2.73	3.84	4.68	5.84	9.88	8.68	5.26	6.19	1.59	56.51
6.	Burkes	3.26	1.54	5.14	2.75	7.94	5.66	6.49	7.99	8.90	6.76	9.47	.73	66.62
7.	Cassada Garden	2.61	1.88	2.80	4.16	8.21	7.03	6.58	8.67	6.13	5.76	5.63	1.96	61.42
8.	Cedar Valley	1.55	.60	1.45	2.76	5.93	5.30	6.54	8.40	4.87	5.48	5.81	1.61	50.30
9.	The Cotton	1.87	1.39	3.02	2.53	4.31	4.28	4.06	7.94	4.86	3.35	11.74	.90	40.51
10.	Comfort Hall	2.14	1.46	3.52	3.51	4.72	4.62	4.33	8.68	5.52	4.29	8.13	.98	55.51
11.	Collins	1.42	1.63	2.40	2.31	4.52	3.02	3.76	7.25	5.52	3.90	7.71	1.25	45.11
12.	Creek Side	4.28	1.81	4.83	4.04	4.42	5.22	7.39	11.45	7.19	4.68	9.34	2.02	65.04
13.	Delaps	3.16	1.93	3.16	2.93	5.56	3.95	5.70	8.35	8.03	6.41	6.65	1.42	59.94
14.	Donovans	2.80	1.87	2.24	2.98	4.69	4.58	4.86	8.40	7.89	5.81	6.55	1.00	53.67
15.	Diamonds	3.40	2.36	3.57	2.42	6.11	3.78	4.77	8.24	5.57	5.76	8.06	.96	55.00
16.	Five Islands	3.03	1.79	2.35	5.91	4.69	5.05	7.50	8.47	5.96	3.10	3.00	1.50	52.35
17.	Fitches Creek	3.36	2.24	3.82	3.60	5.40	6.29	6.33	8.65	6.95	6.71	6.69	1.87	62.11
18.	Friars Hill	2.41	1.60	1.62	3.14	3.07	5.74	8.38	8.48	5.55	5.19	5.19	2.03	52.35
19.	Lyons	3.56	1.96	3.31	2.33	3.85	3.68	4.01	8.54	5.90	4.61	8.12	1.16	51.01
20.	Gavorns	2.63	1.22	2.78	1.96	4.75	3.67	3.42	7.09	5.34	4.40	10.07	.68	48.01
21.	Gilberts	2.14	1.25	2.74	2.15	5.52	3.37	4.32	7.75	4.68	5.09	8.19	1.04	48.24
22.	Greencastle	3.92	1.73	4.91	4.47	4.15	6.62	7.40	10.92	8.77	5.32	7.82	1.96	68.19
23.	Langfords	1.90	1.14	1.13	3.61	4.36	5.71	7.24	7.93	5.22	5.93	4.17	1.73	50.07
24.	Long Lane	3.00	1.33	2.41	1.19	5.45	2.84	2.95	7.45	5.67	4.79	10.14	.98	48.20
25.	Montpelier	3.21	2.69	3.66	3.20	3.43	3.14	5.36	8.65	6.12	4.43	7.76	1.12	52.67
26.	Morris Loobys	3.53	2.91	.90	2.35	4.32	4.17	6.61	7.59	6.62	5.03	8.15	.90	53.08
27.	Cotton Station	1.99	1.43	1.34	2.87	3.46	5.48	6.97	7.83	5.61	5.10	5.21	1.89	49.18
Carried forward		76.58	46.74	79.00	81.44	137.38	125.91	153.69	228.05	171.20	141.14	191.03	36.04	

APPENDIX I—(cont'd)
RAINFALL IN ANTIGUA—1952.

No.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
	Brought forward	76.58	46.74	79.09	81.44	137.38	125.91	153.69	228.05	171.20	141.14	191.03	36.04	
28.	New Division	3.68	1.89	3.97	5.63	2.41	5.20	7.68	9.40	4.42	4.76	7.43	2.79	59.26
29.	North Sound	3.35	2.85	2.45	4.29	5.46	4.30	6.14	9.45	8.94	5.66	8.31	1.45	62.65
30.	Parcs & Cockranes	2.74	2.20	2.98	2.40	6.30	3.05	4.02	8.09	5.14	5.75	7.91	.91	51.49
31.	Parham New Works	3.00	2.10	3.60	2.40	7.70	4.10	5.41	8.70	6.30	4.95	8.81	1.01	58.08
32.	Parham Lodge	1.46	1.20	2.57	1.89	4.20	4.82	3.48	7.53	4.76	5.04	7.85	.92	45.72
33.	Paynters	3.23	2.21	3.48	3.24	5.10	6.12	6.73	7.07	6.37	7.04	8.10	1.64	60.33
34.	Piccadilly	4.72	1.40	2.55	2.80	4.24	4.14	7.43	9.93	7.81	4.75	6.98	1.00	57.75
35.	Thibous	1.54	.61	.61	2.47	7.23	5.18	8.18	8.52	2.11	7.20	2.63	.93	46.60
36.	Willis Freemans	3.80	1.54	3.79	3.07	7.16	5.22	7.33	8.74	8.95	6.63	9.67	1.02	66.92
37.	Wallings Dam	5.49	2.38	3.32	3.17	3.68	4.91	8.32	3.13	9.23	9.03	6.45	.87	59.98
38.	Yeptions	2.31	1.90	1.89	7.83	5.03	5.58	7.17	9.34	9.87	5.53	4.65	1.77	62.87
39.	Yorks	2.66	.78	3.15	3.80	2.31	4.76	6.09	8.77	5.50	4.80	5.12	1.95	49.69
40.	St. John's	3.51	1.50	2.75	4.49	6.05	6.44	6.72	9.02	7.78	5.46	5.92	1.37	61.01
	Totals (40 Stations)	118.07	68.69	116.11	128.92	204.25	189.73	238.39	335.74	258.38	217.79	280.86	53.67	2210.60
	Means (40 Stations)	2.95	1.72	2.90	3.22	5.11	4.74	5.96	8.39	6.46	5.45	7.02	1.34	55.26
	Means 1933—1952	3.04	1.55	1.47	2.14	4.06	3.36	3.45	4.98	5.64	5.42	5.72	3.18	44.01

APPENDIX II.

RAINFALL IN ANTIGUA.

The average Rainfall (Annual) for the 60 years previous to 1933 was 43.47 inches.
Means 1933-1952.

No. of Stations.	Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
59	1933	1.98	.92	1.07	2.62	4.69	2.60	5.28	1.87	8.40	3.04	6.18	2.85	41.50
60	1934	1.56	.64	2.05	.61	1.11	3.51	2.81	7.42	3.90	1.62	10.74	5.89	41.86
60	1935	1.33	1.15	.96	1.96	2.98	2.41	4.36	3.24	4.35	8.70	5.65	2.12	38.31
60	1936	1.65	1.26	.93	2.84	8.44	3.61	5.92	5.36	10.15	8.14	4.41	7.23	59.94
60	1937	8.54	3.07	.79	4.39	1.22	1.03	3.86	5.15	4.99	3.47	8.13	2.64	48.28
58	1938	2.07	.81	1.20	.61	1.06	11.58	3.10	6.39	3.00	3.95	8.41	2.67	44.75
59	1939	1.64	1.11	1.72	.25	.91	1.06	3.09	1.29	1.86	9.12	5.52	1.92	29.70
66	1940	3.41	3.09	2.13	2.41	4.31	2.71	2.15	3.04	3.04	2.41	6.79	1.88	37.37
66	1941	3.10	.71	1.63	2.10	12.77	3.49	3.02	4.07	5.25	2.95	8.06	2.22	49.37
56	1942	5.61	1.76	.55	4.43	2.62	4.45	3.39	6.57	2.67	4.53	10.56	2.81	49.95
54	1943	3.99	1.91	1.63	1.01	7.70	5.44	1.96	6.84	3.40	8.69	4.17	2.34	49.08
54	1944	2.99	1.32	.39	.55	2.83	3.84	6.46	4.53	4.40	5.69	3.48	1.55	37.13
55	1945	1.40	2.44	1.44	1.59	3.97	2.42	3.36	4.62	6.57	7.59	1.88	3.60	40.90
51	1946	2.12	1.09	1.93	4.53	3.21	1.97	1.32	3.76	5.29	2.32	4.68	4.89	37.11
49	1947	3.62	.50	.61	.94	3.77	1.50	2.57	1.68	7.42	4.46	1.00	.76	28.84
48	1948	2.44	.93	1.51	.90	2.55	3.98	1.86	2.28	4.64	7.02	5.28	3.92	36.41
45	1949	1.73	2.40	4.42	3.11	1.45	3.09	3.37	3.37	12.31	6.28	3.35	3.78	49.03
40	1950	5.89	2.58	1.30	2.25	1.74	1.56	1.63	11.23	4.56	7.38	5.07	2.88	48.07
41	1951	3.81	2.34	1.11	2.42	9.46	2.84	3.54	7.88	10.51	5.16	3.62	6.42	59.13
40	1952	2.95	1.72	2.90	3.22	5.11	4.74	5.96	8.39	6.46	5.45	7.02	1.34	55.26
Monthly means 1933-1952		3.04	1.55	1.47	2.14	4.06	3.36	3.45	4.98	5.64	5.42	5.72	3.18	44.01

APPENDIX III

SUGAR PRODUCTION—ANTIGUA

Year	Acres Reaped	Tons (Long) Grey Crystals	Tons (Long) Muscovado	Average yield Tons Cane per acre	Tons Cane per ton Sugar	Tons Sugar per acre
1941	11,374	17,584	166	12.9	8.23	1.55
1942	11,703	21,979	193	16.5	8.71	1.89
1943	9,187	21,867	208	18.7	7.79	2.39
1944	8,525	16,279	125	14.3	7.47	1.92
1945	8,823	20,663	72	16.8	7.15	2.35
1946	9,560	26,024	122	20.7	7.57	2.73
1947	10,267	22,746	100	17.5	7.87	2.22
1948	8,782	12,174		11.5	8.32	1.38
1949	8,494	18,263	75	18.2	8.48	2.15
1950	11,800	30,681	422	21.3	7.88	2.64
1951	9,960	18,511	397	17.4	9.20	1.99
1952	12,423	33,684	562	23.9	8.64	2.75

APPENDIX IV

VALUE OF IMPORTS OF CERTAIN COMMODITIES INTO ANTIGUA IN HUNDRED
OF POUNDS STERLING (£ 00)

Foodstuffs for Human Consumption	1945-48 Average	1949	1950	1951	1952
Flour	... 890	812	895	740	758
Pulses	... 6	8	3	2	3
Rice	... 222	297	271	334	367
Cornmeal (Maize)	... 264	258	342	432	413
Bread and Biscuits	... 34	70	18	121	65
Butter and Substitutes	... 140	335	144	177	348
Lard and Substitutes	... 84	162	43	128	76
Edible Oils	... 149	134	261	58	286
Preserved Milk	... 32	58	45	53	32
Cheese	... 32	70	65	45	100
Preserved Meat	... 202	121	231	147	335
Preserved Fish	... 305	377	312	333	336
Fruit & Vegetables	... 133	46	44	115	77
Coffee	... 12	17	17	31	16
Tea	... 10	27		7	11
Cocoa	... 18	29	31	62	36
Sugar	... 70	7	2	2	1
Total	... 2,603	2,848	2,724	2,837	3,260

APPENDIX V

PRINCIPAL EXPORTS FROM ANTIGUA IN HUNDREDS OF POUNDS
STERLING (£ 00).

Commodity	1945—48 <i>Average</i>	1949	1950	1951	1952
Sugar	... 3,765	4,223	9,585	5,077	9,668
Molasses	... 107		625	198	442
Rum	... 87	36	8	30	15
Cotton Lint	... 168	1,537	1,346	1,539	1,366
Cotton Seed, Oil and Meal...		34	33	31	10
Limes and Lime Products ...		8		1	
Tomatoes	... 1	1		1	
Coconut Products	...				
Livestock	... 10	2	1	4	
Hides and Skins	...	5	1	7	6
Other agricultural products*		16		52	
	4,138	5,862	11,599	6,940	11,507

*Includes forest products, fruits, vegetables and ground provisions.

PART II.

ANNUAL REPORT

OF THE

ST. KITTS-NEVIS-ANGUILLA

Agricultural Department

FOR THE YEAR

1952

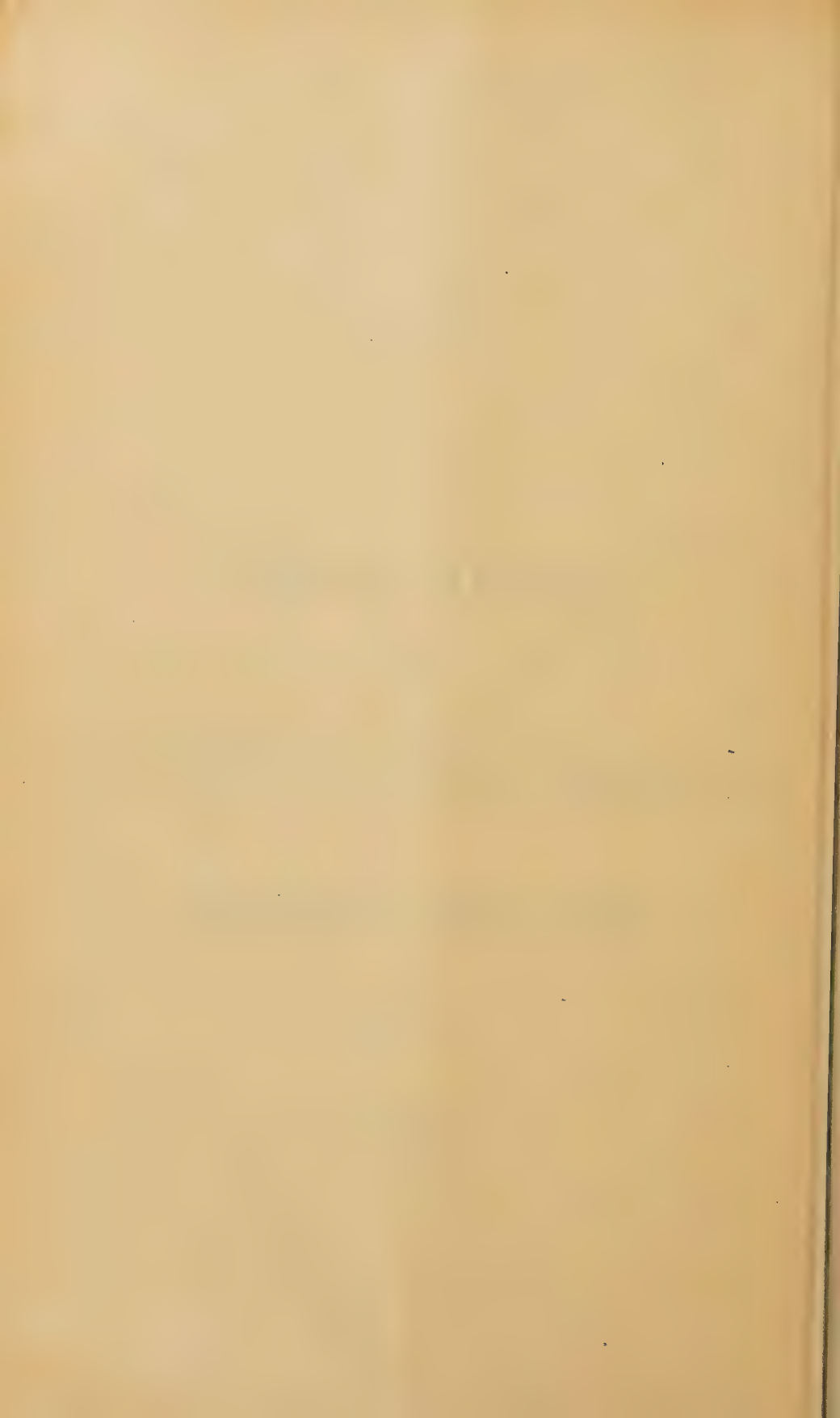


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Report of the Agricultural Department, St. Kitts-Nevis-Anguilla, for the year ended 31st December, 1952.

SECTION I AGRICULTURE IN THE PRESIDENCY WEATHER CONDITIONS.

ST. KITTS. The average monthly rainfall for the year is given in Table I and is compared with the rainfall for the period 1914—1952.

TABLE I.

Month.	Rainfall in Inches	
	Average 1914—52	Average 1952
January	3.71	4.91
February	2.20	3.04
March	2.41	2.93
April	3.29	3.72
May	4.40	7.34
June	4.03	2.15
July	4.81	7.95
August	5.71	10.63
September	6.62	8.24
October	6.44	5.55
November	6.82	5.81
December	4.50	2.53
Total	54.94	64.80

The average monthly rainfall figures for the Island for 1952, when compared with the average figures for the period 1914—52, show that the total precipitation was 9 inches above average and that the rainfall was fairly well distributed. The rainfall for June, October, November and December was below average. The rainfall for 1952 was seven inches higher than the rainfall for the previous year.

The Meteorological Report for 1952 is given as Appendix VI to this report.

NEVIS. The rainfall during the year was above average but poorly distributed. The rainfall recorded for the year and the average rainfall figures over a period of seven years at three stations located in different parts of the island are given in Table II,

TABLE II.
RAINFALL IN INCHES.

Month.	Prospect		Cades Bay		New River	
	Average previous 7 years.	1952	Average previous 7 years.	1952	Average previous 7 years.	1952
January	4.59	4.67	3.25	3.98	2.72	2.72
February	2.85	1.63	2.22	4.78	1.54	2.61
March	1.87	3.15	1.54	1.49	1.30	3.08
April	2.33	1.98	1.93	2.45	1.62	0.56
May	3.99	5.44	3.96	6.95	3.50	2.52
June	3.14	2.12	3.23	1.40	2.88	—
July	4.10	6.40	4.21	7.32	2.45	4.22
August	7.51	7.67	5.37	10.37	4.13	11.98
September	7.83	10.98	8.25	12.18	6.32	6.78
October	6.29	3.67	5.07	4.33	5.04	3.03
November	4.72	3.81	5.30	8.39	3.93	4.67
December	4.54	2.32	3.86	0.95	4.63	1.55
Total	53.76	54.04	48.19	54.49	40.06	43.72

The highest maximum temperature recorded for the year at the Prospect Experimental Station was 89° F on the 18th June and the lowest minimum temperature 63° F on the 8th March and 1st December.

ANGUILLA. The rainfall recorded at the Agricultural Station in the Valley District was 24 inches more than the rainfall for 1951. February, March, June and December were very dry but for most of the other months the rainfall was considerably above average. The monthly rainfall for the year at the Agricultural Station is given in Table III.

TABLE III.

Month.	Rainfall inches.	No. of days of rain.	Highest rainfall.
January	4.96	18	1.80 (12th)
February	1.97	9	
March	1.24	8	
April	6.23	12	2.00 (22nd)
May	6.26	11	3.05 (8th)
June	1.25	6	
July	11.05	19	2.60 (8th)
August	11.07	21	2.20 (26th)
September	10.77	18	2.55 (22nd)
October	5.13	15	1.24 (15th)
November	10.69	20	3.45 (18th)
December	0.92	7	
Total	71.54	164	

AGRICULTURAL INDUSTRIES.

SUGAR.

ST. KITTS. The average rainfall figures for the island for the fifteen month period November, 1950 to January, 1952, when compared with the previous 38 year average, show that the rainfall covering the growing period of the plant cane crop was 4 inches above average. The late ratoons must have benefited considerably from the heavy rains in December, 1951 and the rains during the period January to May, 1952.

The total output of sugar by the St. Kitts (Basseterre) Sugar Factory was 50,614 tons. This exceeded the output of 1951 by more than 6,000 tons. Approximately 1,200 tons of sugar were manufactured from canes shipped from Nevis.

Growers in St. Kitts supplied to the sugar factory 435,595 tons of cane as compared with 369,515 tons in 1951 and 334,714 tons in 1950. The average yield of cane per acre was 34.20 tons as against 30.26 tons in 1951 and 29.54 tons in 1950. The average yield of sugar per acre was 3.88 tons as against 3.51 tons in 1951 and 3.56 tons in 1950. The sugar exported amounted to 51,410 tons valued at £1,806,299 as against 38,542 tons valued at £1,148,928 in 1951. Exports included sugar carried over from the 1951 crop. The position with regard to local consumption and export during the year is as follows:—

Stocks held at the St. Kitts (Basseterre)

Sugar Factory at 31.12.51	...	3,579 tons
Production during 1952	...	50,614 "
		54,193 "

Exports to United Kingdom & New Zealand 50,519 tons

Exports to Caribbean area	..	891 "
Used for local consumption	...	2,624 "
Stocks held at the Factory at 31.12.52	...	159 "
		54,193 "

1,681,764 gallons of vacuum pan molasses valued at £71,710 were exported as against 1,223,531 gallons valued at £31,652 in 1951.

All raw sugar for export was sold to the Ministry of Food at £35. 15s. per ton *c.i.f.* (£35. 0s. 3d per ton *f.o.b.*) plus £2. 15s. per ton to be paid into the following funds at the rates shown:—

Sugar Industry Rehabilitation Reserve Fund	10/- per ton
Sugar Industry Price Stabilization "	25/- " "
Labour Welfare Fund	20/- " "

These funds were established in 1947.

The first payment for canes was 45s. 7d. per ton. The contractors' share of the surplus was 6s. 7d. per ton making a total price of 52s. 2d. per ton of cane as against 44s. per ton in 1951. Outside suppliers were paid 49s. 8d. per ton of cane as against 41s. 6d. per ton in 1951 and 38s. 9d. per ton in 1950.

At the end of the year the 1953 crop was estimated at 53,000 tons of sugar.

Figures of production for the past ten years are given in Table IV.

TABLE IV.

SUGAR—ST. KITTS.

Year.	Acreage reaped.	Tons of cane produced.	Tons of cane per acre.	Tons of sugar produced.	Tons of sugar per acre.
	Acres.			Grey crystals 96°	
1943	9,063	262,933	29.01	32,161	3.52
1944	9,310	211,788	22.75	27,621	2.95
1945	8,581	225,029	26.22	28,543	3.32
1946	9,624	266,576	27.99	33,513	3.50
1947	10,718	280,054	26.18	34,357	3.10
1948	9,880	264,956	26.81	31,392	3.15
1949	10,534	292,160	27.73	35,667	3.31
1950	11,330	334,714	29.54	39,786	3.56
1951	12,210	369,515	30.26	42,856	3.51
1952	12,737	435,595	34.20	49,414	3.88

NOTE:—The weight of canes supplied from Nevis and the equivalent tonnage of sugar are not included in the above figures.

The variety percentages for all crops for the period 1943 to 1952 are given in Table V.

TABLE V.

PERCENTAGES OF ACREAGES OF SUGAR CANE VARIETIES REAPED IN ST. KITTS DURING THE PERIOD 1943 TO 1952.

Varieties.	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
B37161	0.07	5.63	30.80	56.96	73.00	84.69	92.93	94.29	93.69	83.94
B34104		0.45	2.10	7.74	8.34	4.76	3.28	1.38	1.63	2.98
B3439	25.80	26.29	18.05	6.02	4.86	2.69	0.12	0.54		
B35187	0.40	2.14	5.55	7.70	4.63	1.14	0.52		0.01	
B2935	54.68	47.57	26.29	9.70	2.58	0.61	0.31			
B-H.10 (12)	17.00	15.70	12.23	6.98	2.41	1.21				
B4098				0.10	0.70	1.93	0.46	0.30	0.17	0.08
B41211					0.10	0.81	0.38	0.52	2.74	8.38
B3337							0.06		0.39	1.46
B4362								0.01	0.06	0.08
B41227								0.05	0.09	0.26
Mixed	0.44	1.08	4.45	4.52	3.47	2.55	1.88	2.82	1.22	2.75

It will be seen from the above Table that of the total acreage reaped by estates in 1952 the variety B.37161 occupied 84 per cent., a decrease of 9.75 per cent., as compared with 1951. The acreage of B.41211 increase by 5.64 per cent.

TABLE VI.

PERCENTAGES OF PLANT AND RATOON CANES REAPED DURING THE PERIOD 1943—1952.

	1943.	1944.	1945.	1946.	1947.	1948.	1949.	1950.	1951.	1952.
Plant Canes ...	48.04	45.36	44.95	51.80	44.22	38.14	34.89	38.77	35.47	31.87
First Ratoons ...	40.14	44.64	43.30	36.44	44.42	43.99	38.35	22.07	36.18	32.74
Second Ratoons ...	9.22	7.22	9.36	9.55	9.68	15.41	20.62	19.05	17.04	22.53
Third Ratoons ...	1.90	2.78	2.39	2.21	1.68	2.46	5.92	9.66	9.66	9.50
Fourth Ratoons ...							0.22	0.45	1.65	3.36

The figures given in Table VI show the tendency in recent years, since the newer cane varieties from Barbados have been used on a large scale, for the estates in St. Kitts to grow crops with a higher percentage of ratoons.

The 1952 cane crop was a record for the island and was mainly the result of the extension of the cultivation of the high yielding variety B41211. The department received three cuttings of this variety from the British West Indies Central Sugar Cane Breeding Station in Barbados in 1944. These were first multiplied at the Experiment Station at La Guerite and later on one estate. By 1946 there was sufficient planting material of this variety for establishing a field or two on every estate in the island.

According to the Customs returns the exports of sugar and molasses for the period 1943—52 are as shown in Table VII.

TABLE VII.
SUGAR—EXPORTS AND VALUES.

Year.	Sugar.		Molasses.		Prices grey crystals per long ton f.o.b. £. s. d.
	Exports Long Tons.	Value. £	Exports Imp. gallons.	Value £	
1943	36,011	510,961	477	4	13. 15. 3
1944	27,593	418,485	306,831	4,220	14. 15. 7
1945	26,666	459,394	1,535,286	33,672	16. 19. 6
1946	30,739	599,485	679,820	15,576	18. 17. 8
1947	31,631	756,560	574,786	13,490	20. 15. 6
1948	30,448	819,031	947,255	21,348	23. 12. 1
1949	33,781	918,110	1,067,807	15,023	23. 12. 3
1950	38,646	1,120,102	1,007,647	23,343	27. 1. 7
1951	38,542	1,148,928	1,223,531	31,652	29. 6. 6
1952	51,410	1,806,299	1,681,764	71,710	35. 0. 3

NEVIS. While the cane crop was not as large as the two previous crops yet it was above the average for Nevis. It is estimated that approximately 1,000 acres were harvested for the 1952 crop. The crop was disposed of as follows:—

Purchased for shipment to St. Kitts	....	10,957 tons
Crushed at New River and Hamilton sugar works for the manufacture of muscovado sugar (estd.)	....	830 „
Total production	....	11,787 tons

In Table VIII information relating to production, marketing and price of canes is given for the past 10 years.

TABLE VIII.
SUGAR CANE INDUSTRY - NEVIS.

Year.	Canes (tons)			Prices.		Weight of canes paid for by the St. Kitts Factory.	Loss % (Nevis scales to weighing station at Factory, St. Kitts.)
	Purchased for shipment to St. Kitts.	Used for production of Muscovado sugar.	Total Production.	Total price paid by Marketing Dept. for canes shipped.	Total price paid by St. Kitts Factory for canes.		
				s. d.	s. d.	Tons.	
1943	2,546	750	3,296	14 6½	20 0	2,404	5.6
1944	1,349	600	1,949	16 7½	22 3	1,284	6.8
1945	484	540	1,024	19 1	25 6	447	7.6
1946	1,698	1,022	2,720	22 7	28 3	1,618	4.7
1947	6,510	1,544	8,054	23 6	29 6	6,177	5.1
1948	2,176	2,180	4,306	24 11½	33 3	1,998	8.2
1949	6,544	530	8,974*	25 11½	33 6	6,254	4.4
1950	12,267	850	13,117	30 1	39 9	11,765	4.0
1951	12,728	1,124	13,852	31 11½	42 6	12,217	4.0
1952	10,957	830	11,787	38 9	50 8	10,547	3.7

*It is estimated that approximately 1,900 tons of canes were not reaped for this crop.

The total price paid to growers for canes was 38s. 9d. per ton at the scales. A first payment of 29s. 2d. per ton was made and a final payment of 9s. 7d. per ton. Growers therefore received 6s. 9½d. more for their canes than for the previous crop.

It is still necessary to transport most of the cane from the Windward district to Charlestown for shipment as the Newcastle harbour is too shallow to allow the larger lighters to take canes there. Of the 2,016 tons produced in the Windward district 1,618 tons had to be trucked to Charlestown.

At the end of the year the 1953 crop was estimated at 9,400 tons. It appears that the acreage for reaping in 1954 has been increased.

After the 1952 crop extensive repairs to the New River sugar works were undertaken. The whole of the copper wall was taken down and rebuilt; a supply of boiler tubes were ordered from the United Kingdom and the boiler-feed pump sent to the St. Kitts (Basseterre) Sugar Factory for a complete overhaul. Unfortunately it has not been possible to get new coppers and some of the old ones which had to be replaced are in poor shape.

COTTON.

The figures of production for the 1951—52 season are given in Table IX.

TABLE IX.
PRODUCTION 1951—52.

Islands.	Acreage.	Clean lint.		Stained lint.		Total lint.		Yield per acre lb.	
		Bales.	lb.	Bales.	lb.	Bales.	lb.	Clean.	Stain.
St. Kitts ...	535	122	60,594	69	33,496	191	94,090	113	63
Nevis ...	3,042	983	491,682	163	81,455	1,146	573,137	162	27
Anguilla ...	90	28	7,025	2	497	30	7,522	78	6
Total ...	3,667	1,133	559,301	234	115,448	1,367	674,749		

The production for the past ten years is shown in Table X.

TABLE X.

Year.	Area planted in Sea Island Cotton.				Total lint production.				Yield of lint per acre.		
	Acres.				lbs.						
	St. Kitts.	Nevis.	Anguilla.	Total.	St. Kitts.	Nevis.	Anguilla.	Total.	St. Kitts.	Nevis.	Anguilla.
1942—43	1,100	2,573	200	3,873	223,150	200,148	17,224	440,522	203	80	86
1943—44	842	2,544	70	2,956	59,439	302,982	4,503	366,924	174	119	64
1944—45	1,032	2,680	70	3,782	257,831	314,818	4,611	577,260	250	117	66
1945—46	860	1,688	60	2,608	158,716	205,045	4,222	367,983	185	121	70
1946—47	956	1,319	30	2,305	194,088	101,224	1,972	297,234	203	77	66
1947—48	333	1,668	60	2,061	73,434	246,792	2,608	322,834	223	148	43
1948—49	1,169	3,106	100	4,375	231,089	315,391	4,864	551,344	197	101	48
1949—50	830	1,414	60	2,304	139,114	155,493	4,110	298,717	168	110	69
1950—51	690	2,184	60	2,934	139,390	332,925	3,481	475,796	202	153	58
1951—52	535	3,042	90	3,667	94,090	573,137	7,522	674,749	176	189	84
Means ...	785	2,222	80	3,087	157,029	274,796	5,512	437,337	198	122	65

In St. Kitts only 535 acres of cotton were planted for the 1952 crop. Planting began on the 1st March but the weather was dry during the month and the crop was established with difficulty. The crop was a partial failure as it was severely attacked by the pink bollworm at an early stage and 36 per cent. of the total crop reaped was stains. There was therefore no improvement of the pink bollworm situation and the yield of clean lint was only 113lb per acre.

The estates are co-operating with the Department in trying to find any unknown areas of wild cotton or other host plants of the pink bollworm which may be carrying the pest through the close season. The question of changing the time of planting to September to coincide with the planting of the crop in Nevis was considered but the growers think that it will not be possible to reap the cotton crop during the harvesting of the cane crop. This is unfortunate as there is no doubt that, with the present times of planting of the St. Kitts and Nevis crops, the crop in Nevis is a potential source of danger to the crop in St. Kitts. The St. Kitts Sea Island Cotton Association Ltd. has requested Government to change the planting season in 1953 to 1st May from the 1st March and it is hoped that about 200 to 300 acres will be planted at this time.

The clean lint had not been shipped at the end of the year but growers had contracted to sell this lint to the Raw Cotton Commission at \$1.34 per lb (f.o.b. St. Kitts). The stains were sold to a local buyer at 45 cents per lb.

For the 1951—52 crop 2,513 growers in Nevis planted 3,042 acres and obtained the highest yield of clean lint per acre—162 lbs—for the past 20 years. The quality of the lint was satisfactory, 74 per cent. of the cotton falling within grades 1 and 2.

An average price of \$1.08 per lb (f.o.b. Nevis) was obtained for 491,682 lbs of clean lint sold to the Raw Cotton Commission. The total amount realised from the sale of clean lint was \$530,491.28.

63,505 lbs of stains were sold to a local buyer at 45 cents per lb and 9,500 lbs to a buyer in Guadeloupe at 50 cents per lb f.o.b. Nevis.

Growers received a first payment of 24 cents per lb for clean seed cotton, an interim payment of 2 cents per lb. and a final payment of 5.5 cents per lb. making a total payment of 31.5 cents per lb. for clean seed cotton. 13 cents per lb. was paid to growers for stained seed cotton.

It is estimated that 3,400 acres of cotton have been planted for the 1952—53 crop as against 3,042 acres for the previous crop. The dry weather at the end of the year resulted in a considerable shedding of bolls from the plants and the yield will probably be lower than for the 1951—52 crop. A contract has been signed with a private firm in the

United Kingdom for the whole of the 1952—53 production of clean lint at a price of 86 cents per lb.

In Anguilla about 90 acres of cotton were grown. The yield was better than it has been for many years. The clean seed cotton was purchased by Messrs C. Rey & Co and growers received a total payment of 26½ cents per lb for their cotton.

It is estimated that about the same acreage has been planted for the 1952—53 crop but the return is not likely to be as good.

According to the Customs returns the exports of cotton lint, cotton seed, cotton seed meal and cotton seed oil for the period 1943-52 are as shown in Table XI.

TABLE XI.

Year	Cotton Lint.		Cotton Seed.		Cotton Seed Meal, Cotton Seed Oil.				Cotton Lint (clean) f.o.b. per lb.
	Exports lb.	Value £	Exports tons.	Value £	Exports tons.	Value £	Exports gals.	Value £	
1943	287,611	25,424			14	80	559	122	22½—24d.
1944	492,316	47,564			13	96	665	168	
1945	593,667	58,347			105	616	940	284	
1946	269,477	17,113	2	75	6	47	2,624	779	19 —24d.
1947	462,015	48,240			10	35	124	27	27 —28d.
1948	246,468	30,801			12	133	135	51	34 —39d.
1949	591,179	78,730			32½	273	1,933	689	37½—46d.
1950	269,605	44,495			199	8,897	450	84	37½—46d.
1951	352,832	62,134			68	757			51½—56d.
1952	755,596	162,796			21	219			

COCONUTS.

The small coconut industry in Nevis is confined mainly to one estate, although there are two other small estates on which some copra is now being produced. During the year 70 tons of copra were exported to Barbados. 34,800 dry nuts and 244 water nuts were also exported.

FOOD PRODUCTION.

As in previous years the acreage of food crops grown by estates in St. Kitts during the year was regulated by Notice under the Vegetable Production (Defence) Control Order 1942. Owners of estates were required to plant a minimum of 20 per cent of their total cane acreage in food crops during the year. Notices for the planting of sweet potatoes were issued to a certain number of estates each month. With the exception of April and June weather conditions were satisfactory in most districts of the island for all kinds of food crops.

For 1953 it was decided by Government that the acreage of food crops to be grown by the estates should be reduced from 20 per cent. to

10 per cent. of their total acreage under sugar cane. It was estimated that the following acreages of food crops would be grown by the estate in 1953:—

Sweet Potatoes	730 acres
Yams	438 "
Indian corn	219 "
Peas and Beans	73 "

In Nevis the rainfall, although slightly above average, was poorly distributed in most districts of the island and locally grown foods were in short supply during many months of the year.

In Anguilla weather conditions were, on the whole, favourable for all kinds of food crops and good crops of Indian corn, sweet potatoes and pigeon peas were reaped.

With a view to increasing local food production the following minimum prices have been guaranteed to growers in Nevis and Anguilla for crops produced in 1953:—

Yams	...	2½ cents per lb
Sweet Potatoes	...	1½ " " "
Corn on the cob (dried)	...	5 " " "
Pigeon peas (dried & shelled)	...	12 " " "
Blackeye peas (dried & shelled)	...	12 " " "
White and Red Beans (dried and shelled)	...	12 " " "

LIVESTOCK.

In Nevis pastures were in very poor condition in the early months of the year as a result of the dry weather. Livestock owners were however able to carry on during the difficult period by feeding cane tops to their animals.

Livestock owners in Anguilla had no difficulty in maintaining their animals during the year.

The number of animals slaughtered in St. Kitts and Nevis at the public markets in 1951 and 1952 are given below:—

		<i>St. Kitts.</i>		<i>Nevis.</i>	
		1951.	1952.	1951.	1952.
Cattle	....	660	684	140	160
Sheep	....	1,828	1,556	560	1,060
Goats	....	1,014	850	594	1,102
Pigs	....	596	500	384	720
Total	....	<u>4,098</u>	<u>3,590</u>	<u>1,678</u>	<u>3,042</u>

A large number of animals are slaughtered in the country districts of both St. Kitts and Nevis and no records are available for these.

The figures given above seem to indicate that when as in 1952, the peasants in Nevis have reaped a good cotton crop and are fairly well supplied with funds fewer animals are sold for slaughtering to the butchers in St. Kitts.

Section IX.

WORK OF THE DEPARTMENT OF AGRICULTURE.

INVESTIGATIONAL WORK.

Sugar Cane.

Experimental work with the sugar cane crop was continued as in previous years and was carried out in co-operation with the St. Kitts Sugar Association.

23 varietal, 9 manurial, 1 liming and 1 disinfection of cane plants experiments were reaped on estates during the year under the supervision of officers of the department. A report on the results of the experiments has been submitted to the Research Committee of the St. Kitts Sugar Association for printing.

In October, November and December officers of the department laid down on estates a number of experiments for the 1952—54 season.

The following is a summary of the more important conclusions which have been drawn from the results of the experiments reaped in 1952.

VARIETIES.

Varieties of the B41', B43', B44', B45' and B47' series have been under comparison with the standard variety B37161 which occupied 84 per cent. of the area harvested in 1952.

B41' series.

B41211 has given yields and outyielded B37161 in practically all the trials in which it was included. The higher average yield of cane per acre which was obtained in 1952 can in the main be attributed to the increase in acreage of this variety. However, as this cane shows a tendency to rot after reaching maturity, it is not advisable for plantings on the lower lands to exceed 50 per cent. of the acreage replanted and on the middle lands 30 per cent.

B41227 has shown promise at Bourkes, Mansion and Molineux and is worthy of further trial.

B43' series.

B4362 has maintained its reputation for high juice quality but, with a comparatively low yield of cane, its yield of sugar per acre does not exceed that of B41211, and B37161.

B4306, B43229, B43330, B43337 and B43391 have all proved inferior to B37161 and B41211 in all areas in which they have been planted.

B44' series.

B4408, B4466 and B44278 appear to be the only varieties of the B44' series that are worthy of further trial.

B45' series.

B45151, B45152 and B45188 are worthy of further trial although they have not yet given any outstanding results.

B46' series.

B46464, B46223 and B46397 have given promising results on the drier lower lands. B46284 has shown promise on the wet lower lands and B46364 has shown promise on the dry upper lands.

B47' series.

B4744 and B47419 have shown promise and will be included in further trials.

SUMMARY OF PLANTING RECOMMENDATIONS.

Ecological area.		Recommended varieties (per cent. of area to be replanted.)						
Elevation.	Rainfall.	B.37161	B.41211	B.34104	B.41227	B.45151	B.46364	B.4744
Lower Lands	Low	50	50				Nurseries	Nurseries
	Intermediate	50	50				"	"
	High	50	50				"	"
Middle lands	Low	60	30	10			"	"
	Intermediate	60	25	10	5	Nurseries	"	"
	High	70	10	10	10	"	"	"
Upper lands	Low	80	10	10			"	"
	Intermediate	80	5	10	5	Nurseries	"	"
	High	45	5	45	5	"	"	"

Small acreages of B. 4466 may be planted in all areas.

Small acreages of B. 4408 and B. 44278 may be planted on the areas of intermediate and high rainfall.

MANURES.

NITROGEN.

In St. Kitts the response of the cane crop to applications of Nitrogen depends almost entirely on the quantity and distribution of rainfall during the life of the crop. In many experiments no response to Nitrogen has been obtained in seasons with abnormal rainfall conditions during the growing period. An application of 3—4 cwt. Sulphate of Ammonia (70—90 lbs. Nitrogen) per acre will give maximum crops of cane in seasons of good rainfall and satisfactory distribution. In years of exceptionally favourable rainfall an additional 1 cwt. of Sulphate of Ammonia per acre would probably give paying increases in yield in some areas.

PHOSPHATE.

Substantial and paying increases in yield have always been obtained from the application of phosphate (approximately 40 lbs. $P_{2}O_5$ per acre) to the cane crop at Wingfield estate. It is very probable that there are other areas, especially in the wet upper lands, where available phosphate is low and on which increases in yield would be obtained by the use of phosphate. On most of these upper lands suitable sites for laying out phosphate experiments cannot be found and useful information might be obtained if parts of some fields in this area were given dressings of superphosphate of lime. As a precautionary measure 1 cwt. of superphosphate per acre should be used with the nitrogen and potash on all un-penmanured lands.

POTASH.

In the early years of the experimental scheme it was found that large increases in yield were obtained from applications of potash in nearly all cane areas. This is understandable as the soil of the island, especially on the upper lands, is very deficient in available potash. With the abandonment of penmanuring the need for the use of potash has increased. Recent soil analyses have revealed a serious deficiency of exchangeable potash in a large number of fields and an application of $1\frac{1}{2}$ to 2 cwt. muriate of potash per acre should be given to plant canes and to each ratoon crop. The analyses do not show that reserves of exchangeable potash are as yet being built up in the soil of the island. One potash experiment was reaped this year and further trials are to be laid down.

LONG-TERM MANURIAL EXPERIMENT.

Ten crops have been reaped on the experimental area, which is situated in the drier lower lands.

No gain of plant cane has been found to result from applying sulphate of ammonia in addition to a dressing of 25—30 tons per manure per acre.

COTTON SEED MULTIPLICATION.

Seven acres of cotton were planted at La Guerite with pedigree seed supplied by the Cotton Station in Montserrat. Although the rainfall was low in three of the four months of the growing season the total return of lint was fairly good. 2,016 lbs. of lint were obtained from approximately 7 acres. Of this 31 per cent. was stains as a result of the heavy infestation by pink bollworm from the commencement of flowering. The clean lint was sold to the Royal Cotton Commission at \$1.30 per lb. and the stains to a local buyer at 45 cents per lb. Approximately 2,700 lbs of first multiplication seed will be available for sale to growers in St. Kitts for planting in May.

In Nevis it is now possible to carry out the multiplication of pedigree seed on a much larger scale. For the 1952—53 crop 30 acres of cotton were planted at Cades Bay which is now being developed by Government. Pedigree seed from Montserrat was used for planting this area.

COTTON EXPERIMENTS.

For the 1951—52 season a cotton varietal trial was carried out at Prospect and a varietal cum manurial trial at Cades Bay in Nevis.

In September 1952 two varietal experiments were laid down and planted at New River and Prospect.

The experiments are undertaken in co-operation with the Cotton Officer for the West Indies.

The Cotton Officer has supplied the following notes on the experiments reaped in 1952.

Variety Trial—Prospect.

(a) M.S.I. is significantly higher yielding than BD and two of the VH8 strains *i.e.* V5 and V6.

(b) There are significant differences between the six VH8 strains with V5 and V6 lowest. This agrees with results in Antigua and these will be discarded both on the grounds of yield and ginning percentage.

(c) Comparing M.S.I. with the mean of the 6 VH8 strains in this trial M.S.I. outyielded VH8 by 6% and the comparative sinning percentages are 33.0 and 28.8—a decrease with VH8 of

about 13%. With the elimination of V5 and V6 these differences will be reduced. Last season's trials in Nevis gave a yield difference of 8% in favour of M.S.I and ginning percentages of 33.3 and 29.9.

Cades Bay—Variety X Manurial Trial.

(a) M.S.I. outyielded VH8 by 10.2% and BD by 17.4% but the differences were not statistically significant.

(b) The effect of nitrogen was significant. The smaller application (N1) gave an increase of 38.6% while the high application (N2) only gave an additional 6.9%. From the trial the economic application may be 150—200 lbs. of sulphate of Ammonia per acre.

(c) There was no significant effect of phosphate nor of interactions between manures and varieties.

PROCESSING PLANTS OPERATED UNDER THE SUPERVISION OF OFFICERS OF THE DEPARTMENT.

Only 10,347 lb. cob corn and 5,785 lb. shelled corn were purchased at the Government's cornmeal plant at La Guerite during the year. The cob corn was purchased from two estates in St. Kitts and the shelled corn from the marketing department in Nevis. 9,569 lb. cracked corn and 106 lb. second quality meal were sold. 1,789 lb. cob corn was received from estates in St. Kitts for cracking for stock feed.

In Nevis the corn mill at the Hardtimes settlement was operated every other Friday throughout the year and 11,260 lb. of cornmeal was prepared for peasants. 504 lb. cracked corn was made for stock feed.

The muscovado works at New River in Nevis was operated during the year. It is estimated that 830 tons of cane were crushed and 50 tons of muscovado sugar manufactured for local consumption.

EXTENSION WORK.

The three agricultural instructors in St. Kitts and the four instructors in Nevis have continued to advise cultivators to the best of their ability. Most of their work is confined to Government land settlement areas. The agricultural station at Prospect in Nevis continues to prove valuable for demonstration purposes and for the distribution of plants and vegetable seedlings.

The Agricultural Instructor in Anguilla has continued to give valuable advice to the peasantry of the island and at the agricultural station in the Valley district there are useful demonstrations of improved methods of cultivation and manuring. It is proposed to hold an Agricultural Show in Anguilla at the end of 1953.

MARKETING AND CREDIT FACILITIES.

7,207 tons of cane were marketed for the allottees of Fahies, Sadler and Harris settlements. The total amount received for the cane crops of the three settlements was \$91,472.62—an increase of \$28,080.04 over the value of the previous crop. A total of \$63,243.60 was paid to the allottees for canes put at the factory siding and packed in railway trucks. A statement of receipts and expenditure is published as an appendix to this report. Credit facilities were provided for supplies of artificial manures, agricultural tools and planting material for the allottees.

In Nevis the Marketing Department continued to market cotton sugar cane and maize for peasant cultivators and to provide credit facilities for insecticides, artificial manures and planting material. Cash loans up to £3 for cane cultivation were granted to approved allottees on Government settlements.

The total receipts from sales of clean lint, stains and cotton seed amounted to \$555,711.57 and marketing expenses to \$72,101.37. Receipts from the sale of canes to the St. Kitts (Basseterre) Sugar Factory amounted to \$128,254.86. Statements of receipts and expenditure in connection with the marketing of peasants' cane and cotton are published as appendices to this report.

The Marketing Officer is also responsible for the operation of the Government Ginnery. For the 1952 season 491,682 lb. clean lint and 81,455 lb. stained lint were ginned and baled. The receipts of the ginnery amounted to \$29,054.90 and expenditure (excluding cost of management, depreciation charges and interest) to \$23,774.91.

SOIL AND FOREST CONSERVATION.

In St. Kitts approximately 5,660 ft. of permanent contour bunds were established on Government land settlement estates. Molasses grass (*Melinis minutiflora*) was established on two hillsides at Fahies estate and the area under this grass at Sadlers was extended.

In Nevis the contouring of lands for peasants was continued. 5,850 ft. of contour bunds were established and planted with either khus khus grass or guinea grass. 1,542 ft. of main drains were opened and the stone bunds on many settlements were repaired.

Attention was given to the protection of forest areas in both St. Kitts and Nevis. In Nevis 102 permits were issued by the Forest Guard for the burning of charcoal and 61 permits for the felling of timber. There were 14 prosecutions for breaking the forestry regulations with 14 convictions. The highest fine was \$15.00.

LAND SETTLEMENT.

The Government land settlement estates in St. Kitts and Nevis are now under the control of a Land Settlement and Development Board established under Ordinance No. 7 of 1949—the Land Settlement and Development Boards Ordinance.

In St. Kitts the three settlements—Fahies, Sadlers and Harris—continue to be fairly well cultivated by the tenants and very good yields of sugar cane are obtained by many of them. Too little attention is however being given to the production of animal manure for use on the land. The attitude of the allottees to the keeping of livestock for obtaining supplies of pen manure is understandable as the estates on which many of them are employed now do very little penmanuring of their fields.

The amount of indebtedness on Government land settlement estates in Nevis at the end of the year was \$1123.97 as against \$1561.89 on 31st December, 1951 and \$2957.36 at the end of 1950. It will be seen that there has been a considerable reduction in the amounts owed by tenants on these estates.

In Anguilla eleven plots were taken up on the Landsome settlement in 1952 and there is a demand for more land. Large crops of corn, sweet potatoes and cotton were reaped by the tenants on this estate. Good progress is being made on this settlement.

STUD ANIMALS ON GOVERNMENT SETTLEMENTS.

Two half-bred Holstein bulls and two pure bred Berkshire boars were on service at the settlements in St. Kitts at the beginning of the year. The Berkshire boar at Fahies settlement died in October. The number of services by these animals during the year is shown below.

Bulls	...	75 services
Boars	...	43 ,,

In Nevis five bulls, three rams, three boars, two jacks and two bucks are kept on settlements in various districts of the island as stud animals for the use of peasants.

The following is the number of services recorded during the year:—

Bulls	...	187 services
Jacks	...	36 ,,
Boars	...	78 ,,
Rams	...	50 ,,
Bucks	...	33 ,,

At the end of the year the following animals were at the Agricultural Station in the Valley district, Anguilla.

<i>Cattle.</i>		
Grade Zebu		1 bull
Grade Holstein		2 bulls
<i>Sheep.</i>		
Black Head Persian		4 rams
" " " "		3 ewes
African—Black belly		3 rams
<i>Goats.</i>		
British Alpine		4 bucks
Grade Saanen		1 ewe
<i>Pigs.</i>		
Berkshire		1 boar
<i>Poultry.</i>		
Barred Plymouth Rock Fowls		9 hens
" " " "		2 cocks

The following animals are stationed at stud centres in different districts of Anguilla:

Grade Holstein	2 bulls
African Black belly sheep	3 rams
Black Head Persian sheep	1 ram

The following services were recorded for Government animals at stud in Anguilla during the year:

Bulls	...	166 services
Boar	...	49 "
Rams	...	141 "
Bucks	...	32 "

LOOFAHS.

Experiments were continued with the cultivation of Loofahs for export. Three varieties of the Loofah were grown and a bulk sample of some of the best fruits of each variety were sent to the Colonial Products Advisory Bureau, London, for report. The Bureau subsequently reported that the Loofahs were inferior to Japanese loofahs in size and quality and that the very open fibre mesh of the fruits was a disadvantage. It was also stated that in recent months the demand for loofahs had fallen off considerably owing to the ample supplies which are available from Japan.

Samples of Japanese loofahs of first grade have been obtained from two firms of loofah importers in the United Kingdom and it is now

known exactly what type of product is required on the English market. Further efforts will be concentrated on developing from our best variety a type of loofah suitable for export to the United Kingdom.

ALOES.

In November the Agricultural Instructor in Anguilla was sent by Government to Aruba to get information on the present position of the Aloes industry in that island. The report of the Agricultural Instructor on his visit has been submitted to Government. The information obtained in Aruba indicated that the cultivation of aloes in Anguilla for export was unlikely to be an economical proposition.

LESPEDeza.

Several varieties of Lespedeza have been tried but only one variety, *Sericea lespedeza*, the perennial form, has shown any promise of succeeding under the conditions in St. Kitts. Work on this variety is being continued.

DISTRIBUTION OF PLANTING MATERIAL.

The following planting material was distributed from the experimental stations in St. Kitts and Nevis during the year:—

Vegetable seeds	....	426 lbs.
Onion seedlings	....	428,120
Cabbage "	....	12,412
Tomato "	....	35,888
Egg Plant "	....	1,068
Cane Cuttings	....	117,569
Ornamental trees and plants	....	283
Papaw plants	....	39
Grafted mango plants	....	79
Budded pear "	....	29
Seedling lime "	....	20
Guava "	....	11
Sweet potato cuttings	....	131,000
Cassava "	....	7,300

CHEMICAL WORK.

Only 56 samples of milk were analysed during the year as no centrifuge for operation on alternating current, which is now supplied to the laboratory, was available for the work. A new centrifuge has now been ordered.

Exchangeable potash was determined on 5 samples of soil in connection with potash experiments on sugar cane.

BOARDS AND COMMITTEES.

The Agricultural Superintendent is Chairman of the Land Settlement and Development Boards of St. Kitts and Nevis, an Income Tax Commissioner, member of the Sugar Industry Rehabilitation Fund Committee, member of the Forestry Board and of the Research Committee of the St. Kitts Sugar Association.

The Agricultural Officer in Nevis is Chairman of the Forestry Board of that island.

COLONIAL DEVELOPMENT AND WELFARE

Nevis

SCHEME D1179—FACILITIES FOR MARKETING PEASANTS' CANES IN NEVIS.

Under this scheme rails were laid down from the weigh bridge to the end of the pier at Newcastle. This saved the heading of canes from the weigh bridge to the lighters. The cane is now packed on a truck, supplied by the St. Kitts (Basseterre) Sugar Factory, and pushed out on the pier where it can be slung into the lighter.

A new five ton weigh bridge scale has been moved from the Hamilton settlement, where it was not being used, to this shipping point.

SCHEME D1511—CATTLE INDUSTRY, NEVIS.

A further 3,390 yards of mesh wire fence with a single strand of barbed wire on top, 1,511 yards of 5 strand barbed wire and 506 yards of 4 strand barbed wire fencing have been erected at Maddens. As far as possible the mesh wire is used as a boundary fence and the barbed wire used for sub-dividing fences. Electric fences are also used as temporary fences in large paddocks.

Forty more acres have been cleaned and are being planted with suitable grasses. This brings the area cleaned to 214 acres. Guinea grass, Giant Star grass, Pangola grass and Molasses grass appear to be the most promising for the work at Maddens. Elephant grass and Guatemala grass have also been planted for cutting and feeding during dry periods.

Water is the main problem at Maddens. As the supply from the source in the mountain has proved inadequate, a storage tank with a capacity of 30,000 gallons has been built and a pipe line of larger bore is being laid down. It is hoped that when this line has been completed the supply will be better. Arrangements are however being made to dig at least one well to augment this supply.

Fifteen cattle have been purchased during the year and a $\frac{3}{4}$ bred Red Poll bull calf was imported from the Central Experimental Station in Antigua. This brings the total number of cattle on the Maddens farm to 129. Three Black Head Persian sheep (one ram and two ewes) were also purchased from the Central Experimental Station at Antigua.

SCHEME D1672—GROUP FARM PILOT PROJECT, NEVIS (CADES BAY AND SPRING HILL).

The first thing that had to be done under this Scheme was the erection of buildings as all buildings at Cades Bay had been destroyed in the earthquakes in December, 1950.

The following buildings have now been erected:—Manager's house, combined office, storeroom and workshop and an implement shed.

A senior Agricultural Instructor was appointed to take charge of this scheme in September and 20 acres of cotton and 4 acres of sweet potatoes have been planted. 20 acres are being cultivated for cane.

BAYFORDS FARM.

The following are the main objectives for the establishment of a livestock and dairy farm at Bayfords:—

1. The breeding by upgrading and selection of a tropical dairy animal possessing the high yield of the European (Holstein) parent and the hardiness, heat tolerance and adaptability of the creole parent.
2. The multiplication of such animals to provide (a) herd sires for sale to estates and peasants and for use at Government stud centres in St. Kitts, Nevis and Anguilla and (b) heifers for sale to persons interested in the dairy industry.
3. The augmenting of the milk supply of the town of Basseterre.

At the end of 1952 five of the $\frac{3}{4}$ grade animals were in milk. The $\frac{3}{4}$ and $\frac{1}{2}$ grade heifers are doing quite well and two or three families promise to be above the average.

Up to date the following grade bulls have been distributed from the farm:—Nevis 2, Anguilla 4, St. Kitts 4 and Antigua 1. Five grade bulls are kept for service on the farm.

15,420 gallons of milk were produced on the farm in 1952. 10,622 gallons were sold in Basseterre and 4,798 gallons used on the farm. Milk was supplied daily to 100 persons in Basseterre.

On 31st December, 1952 the animals on the farm were as shown below.

Total cattle		116
Cows	...	43
Heifers	...	21
Calves	...	45
Stud bulls	...	7

At the end of the year 32 cows were being milked daily

PIGS.

Berkshire boars	...	2
„ sows	...	6

R. E. KELSICK,
Agricultural Superintendent
St. Kitts-Nevis-Anguilla.

St. Kitts, 16th June, 1953.

Appendix I.

STATEMENT OF RECEIPTS AND EXPENDITURE IN CONNECTION WITH THE
MARKETING OF ALLOTTEES' CANES ON FAHIES, SADLERS AND HARRIS
SETTLEMENTS, ST. KITTS.

	RECEIPTS.	EXPENDITURE.
	\$	\$
1st payment for canes		
	\$	
Harris	8499.66	
Sadlers	18320.75	
Fahies	18689.57	45509.98
1st additional & interim bonus payment		
	\$	
Harris	1192.45	
Sadlers	2487.75	
Fahies	2650.05	6330.25
Final payment for canes		
	\$	
Harris	729.70	
Sadlers	1416.08	
Fahies	1350.31	3496.09
Deductions for rent		
	\$	
Harris	656.40	
Sadlers	1116.45	
Fahies	875.89	2648.74
Deductions for marketing expenses		
	\$	
Harris	4365.33	
Sadlers	8847.15	
Fahies	10162.25	23374.73
Deductions for artificial manures		
	\$	
Harris	843.30	
Sadlers	1667.00	
Fahies	1775.62	4285.92
Deductions for agric. tools supplied		
	\$	
Harris	58.28	
Sadlers	46.17	
Fahies	53.88	158.33
Bonus payment to labourers		
	\$	
Harris	563.60	
Sadlers	1159.77	
Fahies	1249.54	2972.91

Appendix I—(cont'd)

	RECEIPTS.	EXPENDIURE.
	\$	\$
Deductions for arrears truck and tractor hire		
	\$	
Harris	213.60	
Sadlers	302.10	
Fahies	189.59	705.29
Deductions for additional marketing expenses & marketing commission		
	\$	
Harris	303.42	
Sadlers	698.77	
Fahies	879.20	1881.38
Deduction from ex-service man Henderson for loan for building house		100.00
Harris— 1400 tons 2 cwts canes	17,527.86	
Sadlers— 2880 tons 18 cwts „	36,066.00	
Fahies— 3025 tons 14 cwts „	37,878.76	
Excess receipts		9.00
	91472.62	91472.62

Appendix II.

STATEMENT OF RECEIPTS AND EXPENDITURE IN CONNECTION WITH THE
MARKETING OF PEASANTS' COTTON IN NEVIS—1951—52 CROP.*Clean Lint.*

	RECEIPTS.	EXPENDITURE.
	\$	\$
Amount brought forward from 1950—51	4679.95	
Expenses in cotton house		3706.34
temporary staff		406.90
purchase of seed from growers		933.02
export duty		4641.71
cess		4641.71
pier dues		1719.68
shipping expenses on private cotton		71.26
portorage		416.58
lighterage		1065.62
purchase of second hand jute bags		1153.53
insurance paid to grower		21.20
insurance premium for crop		676.24
rent of Government warehouses		668.16
incidentals		31.14
freight on prime seed to Montserrat		160.00
grader's fee in U.K.		1224.96
marketing commission		20767.00
1st payment on seed cotton 1,446,653 lb @ 24 cents p lb		347196.72
2nd payment on seed cotton @ 2 cents p lb		28933.06
ginning & baling expenses—464,171 lb @ 5 cents per lb		23208.55
Refund of shipping expenses on private cotton	165.60	
refund of insurance paid to grower	21.20	
insurance premiums on private cotton	37.82	
Sale of lint to Raw Cotton Commission	501794.71	
" " seed to Spooners Factory	16580.03	
" " prime seed to Montserrat	800.00	
By final payment—1,446,653 lb at 5.5 cents p lb		79565.91
balance carried forward		2870.02
	<u>524079.31</u>	<u>524079.31</u>

Appendix III.

STATEMENT OF RECEIPTS AND EXPENDITURE IN CONNECTION WITH THE
MARKETING OF PEASANTS' COTTON IN NEVIS—1951-52 CROP.*Stained Cotton.*

	RECEIPTS.	EXPENDITURE
	\$	\$
To amount brought forward from 1950-51	326.28	
By expenses in cotton house		550.50
temporary staff		51.83
lighterage on lint shipped to Guadeloupe		19.19
pier dues		4.78
purchase of seed from growers		54.88
rent of Government warehouses		99.84
portorage		7.60
incidentals		4.78
purchase of second hand jute bags		230.71
insurance		49.26
marketing commission		1452.32
1st payment on seed cotton 212,164 lb		
@ 6 cents per lb		12729.84
ginning & baling expenses—73,856 lb		
@ 5½ cents per lb		4062.08
To sale of lint to W. I. Howell 67,009 lb at		
45 cents per lb	30154.05	
sale of lint to Deravin, Guadeloupe 9,500 lb		
@ 50 cents per lb	4750.00	
sale of seed to Spooners Factory 67.33 tons		
at \$19.25 per ton	1296.10	
sale of lint locally	108.28	
refund of insurance premium	2.10	
,, ,, shipping expenses (private)	1.68	
By purchase of lint from growers 3,504 lb		
at 45 cents per lb		1576.80
final payment—212,164 lb at 7 cents per lb		14851.48
balance carried forward		892.60
	<u>36638.49</u>	<u>36638.49</u>

RECEIPTS. EXPENDITURE.

y shipping expenses	\$	\$
clerical assistance		4901.82
portorage on chain slings, cane trucks etc.		251.35
wages to cane weighers		49.42
supplies and incidentals		598.70
wages of night watchman		55.80
rent of land at Newcastle		81.00
lighterage of canes to St. Kitts		4.00
truckage of canes to Charlestown		14988.15
" " " " " (Government)		487.22
amount advanced to muscovado works		3585.96
amount used in shipping yams to Antigua		111.20
1st payment on 10,957 tons 0 cwt. 3 qrs.		9.42
canes @ \$7.00 per ton		76699.26
marketing commission (1%)		1282.55
to refund of amount used shipping yams to Antigua	9.42	
amount refunded by muscovado works	111.20	
amount received from sale of canes to Factory		
10,547 tons 5 cwts. 2 qrs. @ \$10.32 p.t.	108847.88	
cartage allowance from Factory	2531.34	
final payment made by Factory @ \$1.60		
per ton	16875.64	
3y final payment to growers @ \$2.30 per ton		25201.10
excess receipts		68.53
	128375.48	128375.48

APPENDIX V.

VALUE OF IMPORTS OF CERTAIN COMMODITIES INTO ST. KITTS, NEVIS
AND ANGUILLA IN HUNDREDS OF POUNDS STERLING (£ 00)

Foodstuffs for human consumption.	1938	1950	1951	1952
Wheaten flour ...	270	1233	1284	1442
Pulses ...	4	19	27	31
Rice ...	113	283	288	361
Cornmeal (maize) ...	58	227	206	235
Bread & Biscuits ...	22	58	84	79
Butter & Substitutes ...	78	202	321	333
Lard & Substitutes ...	56	108	140	125
Edible oils ...	10	60	123	146
Preserved milk ...	2	171	210	235
Cheese ...	11	70	76	94
Preserved meat ...	63	401	514	507
Preserved fish ...	66	441	475	664
Fruit & Vegetables ...	24	96	147	235
Coffee ...	6	30	52	34
Tea ...	6	23	32	20
Cocoa ...	9	53	78	57
Sugar ...	43	57	28	18
Total ...	841	3532	4085	4621
Animal Feeding Stuffs ...	39	86	92	137
Fertilizers ...	185	714	626	1123
Fertilizers (Volume in tons) ...	2665	2731	2544	3605

APPENDIX V—(Cont'd).

PRINCIPAL EXPORTS FROM ST. KITTS, NEVIS AND ANGUILLA.

Commodity	1938		1950		1951		1952	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		£		£		£		£
Sugar (tons) ...	26,481	204,835	38,646	1,120,102	38,542	1,148,928	51,410	1,806,299
Molasses (gals.) ...	600,828	8,770	1,007,647	23,343	1,223,531	31,652	1,682,804	71,718
Tomatoes (crates of 20lb) ...	2,921	445						
Cotton Lint (bales of 400 lb) ...	1,824	45,193	674	44,495	882	62,134	1,889	162,796
Cotton seed, meal, cake and oil ...		1,204		1,871		757		219
Coconuts and coconut products ...		349		2,238		3,807		8,190
Livestock ...		1,309		3,350		3,534		2,997
Hides & Skins ...		230		668		1,146		638
Other Agricultural products ...		480		261		1,481		779
Salt (Brls. of 360 lb) ...	26,947	3,240	43,609	17,391	51,399	23,701	46,545	25,864
Total ...		266,005		1,213,719		1,277,140		2,079,324

APPENDIX VI.

Latitude 17° 20' N.

METEOROLOGICAL REPORT FOR 1952.

Heights) Barometer 157 feet.

Longitude 62° 45' W

AGRICULTURAL DEPARTMENT, ST. KITTS.

above M.S.L. Rain Gauge 152 feet.

Months.	Barometric Pressure reduced to Sea-Level, 32° Fahrenheit and corrected for gravity.					Temperatures. °F.								Vapour Pressure Ins. of Mercury.			Relative Humidity per cent.		Inches Rainfall.	No. of days on which rain fell.	
	9 a.m.	3 p.m.	Mean.	Highest.	Lowest.	Maximum Means.	Minimum Means.	Maximum Extreme.	Minimum Extreme.	Mean for Month.	Range for Month.	Dew Point 9 a.m.	Dew Point 3 p.m.	9 a.m.	3 p.m.	Mean.	9 a.m.	3 p.m.			Mean.
January	30.003	29.955	29.979	30.065	29.920	80.6	71.6	83	70	79.1	13	68.0	68.3	.686	.692	.689	74.4	70.4	72.4	4.73	10
February	30.036	29.963	29.999	30.070	29.921	80.3	71.7	84	69	76.0	15	67.8	67.9	.659	.671	.665	73.9	70.3	72.1	3.79	10
March	30.031	29.968	30.000	30.069	29.905	85.8	71.6	85	66	75.1	19	67.9	67.4	.686	.671	.679	69.4	65.9	67.7	1.47	6
April	30.019	29.953	29.986	30.060	29.906	83.8	74.1	85	70	77.1	15	70.8	70.9	.759	.757	.758	71.9	75.9	73.9	1.38	7
May	30.014	29.958	29.986	30.074	29.901	84.6	75.2	87	70	78.1	17	72.4	73.2	.816	.834	.825	72.7	73.0	72.9	5.39	10
June	30.029	29.978	30.004	30.065	29.925	85.9	77.4	88	74	81.0	14	72.8	72.7	.807	.801	.804	71.7	68.2	69.5	1.67	6
July	30.042	29.994	30.018	30.074	29.950	84.6	75.7	87	71	79.0	16	73.8	72.6	.843	.837	.840	77.4	74.8	76.1	5.90	20
August	30.001	29.952	29.977	30.068	29.901	85.2	76.8	88	70	79.0	18	74.0	73.5	.846	.838	.837	74.8	72.5	73.7	7.37	13
September	29.972	29.900	29.936	30.005	29.833	84.4	75.8	86	73	79.1	13	74.2	73.8	.855	.847	.851	76.7	74.5	75.6	9.57	16
October	29.974	29.911	29.943	30.019	29.840	84.4	76.4	87	75	81.0	12	73.6	73.8	.837	.834	.836	74.8	73.9	74.4	5.17	13
November	29.936	29.845	29.892	30.026	29.714	83.4	73.6	86	70	78.0	16	73.0	71.2	.810	.774	.792	75.7	72.8	74.3	4.67	11
December	29.996	29.926	29.961	30.094	29.878	81.3	72.3	83	69	76.0	14	66.8	65.7	.656	.644	.650	68.0	63.5	65.8	2.26	8
Means	30.004	29.941	29.973	30.057	29.882	83.6	74.3	85.9	70.7	77.9	15	71.3	70.9	.772	.766	.769	73.4	71.3	72.3	53.67	128

REMARKS:—Highest Maximum Temperature ... 88° F on 22nd August.
 Lowest Minimum " ... 66° F on 7th March.
 Highest Barometer (corr.) ... 30.103 on 20th June.
 Lowest Barometer " ... 29.820 on 19th November.
 Greatest Rainfall in 24 hours ... 3.02 inches on 27th September.

APPENDIX VII. Return of Rainfall in St. Kitts for 1952. *Inches.*

Station.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Fahies	7.28	4.78	4.35	6.74	14.87	4.17	11.75	10.08	6.62	8.41	7.78	3.58	90.41
Wingfield	8.00	6.70	2.65	3.50	10.15	2.80	12.35	10.52	8.75	8.80	6.60	4.05	84.87
Willlets	8.39	2.73	4.80	11.80	8.74	2.22	7.63	12.81	8.23	7.81	6.60	3.18	83.95
Brothersons	5.77	3.50	2.92	8.42	11.18	3.05	8.85	10.38	8.05	6.50	6.90	3.45	78.97
Mt. Pleasant	7.90	3.13	1.75	15.16	5.97	1.22	9.55	13.14	7.20	6.92	4.66	2.20	78.80
Belle vue	4.09	3.03	5.18	3.80	7.78	2.37	8.92	18.17	7.15	7.48	7.85	2.85	78.67
Belmont	7.23	3.10	5.07	9.60	8.56	3.20	7.90	10.69	7.27	5.68	6.31	3.15	77.76
Parsons	4.84	3.54	4.13	7.00	9.22	1.71	8.61	11.81	8.18	7.25	6.17	3.38	75.84
Cranstouns	5.29	3.05	2.89	4.61	12.77	2.79	10.15	11.25	5.39	6.22	7.73	3.69	75.83
Mansion	5.56	3.14	5.06	2.64	10.46	1.74	9.46	15.33	6.66	5.34	7.22	2.54	75.15
Caines	2.52	4.75	2.24	3.52	9.66	2.02	8.76	14.69	8.09	5.04	7.25	3.58	72.12
Harris	4.90	3.14	3.41	3.60	7.09	2.32	8.45	14.45	9.06	6.17	6.29	2.95	71.83
Milliken	5.06	3.36	3.87	2.69	8.96	2.59	7.69	10.14	9.31	7.34	6.61	3.50	71.12
Lodge	3.47	1.70	3.78	2.90	8.28	1.40	10.55	13.50	11.00	4.99	7.10	1.87	70.54
Estridge	5.97	2.69	4.63	2.65	8.88	1.84	8.03	15.03	7.34	4.28	6.54	2.05	69.93
Bourkes	7.35	3.75	1.17	2.14	9.17	2.36	10.55	10.00	6.97	6.02	5.28	3.65	68.41
Molineux	5.57	2.78	3.70	2.98	9.06	2.21	7.82	11.12	10.51	4.20	5.70	2.68	68.33
Bayfords	4.38	2.67	3.49	2.99	8.68	2.05	8.80	10.00	9.10	5.94	7.09	2.57	67.76
Saddlers	4.62	2.82	2.89	3.38	6.92	2.23	7.46	13.92	8.78	5.80	5.86	2.69	67.36
Whites	3.88	2.12	4.32	2.73	7.57	2.17	7.61	11.58	8.90	6.36	6.56	2.09	65.89

APPENDIX VII.—(Cont'd.)
Return of Rainfall in St. Kitts for 1951.
Inches.

Station.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Con Phipps	6.45	2.60	1.35	2.25	5.89	3.65	9.50	9.02	7.60	6.28	6.55	2.04	63.18
Stapleton	4.13	2.27	2.55	2.76	6.90	2.42	7.13	10.46	10.58	5.70	6.81	2.82	64.53
Shadwell	4.55	3.31	2.70	2.86	7.03	2.09	6.64	8.13	9.05	4.70	6.22	2.69	58.97
New Guinea	5.69	1.40	1.20	1.94	5.34	3.33	11.52	7.80	6.98	5.99	5.10	2.40	58.69
Brighton	2.53	1.76	2.90	2.59	5.52	1.75	7.55	11.94	8.13	4.38	6.05	1.48	56.58
Mills	3.16	2.82	3.21	2.41	7.02	1.38	6.29	12.81	6.12	3.62	5.59	2.15	56.38
Camp	5.33	4.54	2.22	1.17	5.32	1.58	5.98	7.34	8.41	5.43	4.80	3.12	55.24
La Guerite	4.73	3.79	1.47	1.38	5.39	1.67	5.90	7.67	9.57	5.17	4.67	2.26	53.67
Pond	4.62	3.19	1.24	1.69	5.95	1.78	5.45	7.08	10.21	4.41	4.79	1.38	51.79
Olives	4.42	3.17	2.33	1.77	5.91	1.98	5.55	7.44	8.88	4.73	3.58	1.90	51.66
L. Bourryeau	1.67	2.35	3.16	1.95	2.82	0.98	6.29	11.04	8.43	5.92	5.67	1.09	51.37
Douglas	3.53	2.50	2.34	2.66	5.78	1.90	5.38	8.64	7.69	4.39	4.56	1.96	51.23
Cunningham	2.73	1.52	2.66	3.29	4.58	1.96	7.26	7.98	8.39	3.75	5.25	1.42	50.79
West Farm	5.15	3.95	1.87	0.90	3.36	1.88	6.76	8.20	6.97	4.49	4.37	2.74	50.64
Needsmust	4.80	2.85	2.05	2.35	4.85	2.00	6.40	6.90	8.45	3.80	4.35	1.80	50.10
Basseterre Factory	4.65	2.40	1.70	2.26	5.31	1.80	6.03	6.70	9.05	3.79	4.12	1.62	49.43
Hermitage	2.18	1.78	2.26	2.80	3.86	1.12	6.29	10.63	7.79	3.22	4.96	1.09	47.98
Buckleys	4.14	3.76	1.69	1.82	4.23	1.80	5.19	5.68	8.33	4.74	3.07	2.17	46.62

APPENDIX VII (Cont'd.)—AVERAGE RAINFALL 1914—1952.

In 1914 the average rainfall on 31 Stations was 52.92 in.

1915	"	"	32	"	75.59	"
1916	"	"	35	"	69.51	"
1917	"	"	33	"	43.53	"
1918	"	"	30	"	52.44	"
1919	"	"	29	"	62.84	"
1920	"	"	28	"	37.13	"
1921	"	"	29	"	47.09	"
1922	"	"	33	"	44.84	"
1923	"	"	30	"	34.58	"
1924	"	"	28	"	68.13	"
1925	"	"	32	"	43.54	"
1926	"	"	27	"	62.57	"
1927	"	"	29	"	64.36	"
1928	"	"	29	"	53.25	"
1929	"	"	28	"	52.55	"
1930	"	"	31	"	45.98	"
1931	"	"	31	"	57.60	"
1932	"	"	33	"	77.27	"
1933	"	"	36	"	63.97	"
1934	"	"	38	"	55.34	"
1935	"	"	39	"	48.89	"
1936	"	"	38	"	63.12	"
1937	"	"	37	"	44.78	"
1938	"	"	37	"	58.38	"
1939	"	"	37	"	45.69	"
1940	"	"	39	"	54.37	"
1941	"	"	40	"	50.92	"
1942	"	"	41	"	81.53	"
1943	"	"	40	"	66.95	"
1944	"	"	41	"	53.02	"
1945	"	"	41	"	46.74	"
1946	"	"	39	"	37.95	"
1947	"	"	41	"	48.22	"
1948	"	"	40	"	50.24	"
1949	"	"	41	"	62.15	"
1950	"	"	39	"	59.73	"
1951	"	"	39	"	57.51	"
1952	"	"	38	"	64.80	"

The mean rainfall for 39 years is 54.94 inches, so that the rainfall for the year 1952 is 9.86 inches above the mean.

MEAN MONTHLY RAINFALL.

		1952	1914—1952
		Inches.	Inches.
January	...	4.91	3.71
February	...	3.04	2.20
March	...	2.93	2.41
April	...	3.72	3.29
May	...	7.34	4.40
June	...	2.15	4.03
July	...	7.95	4.81
August	...	10.63	5.71
September	...	8.24	6.62
October	...	5.55	6.44
November	...	5.81	6.82
December	...	2.53	4.50
Annual Mean	...	64.80	54.94

PART III.

ST. KITTS-NEVIS-ANGUILLA

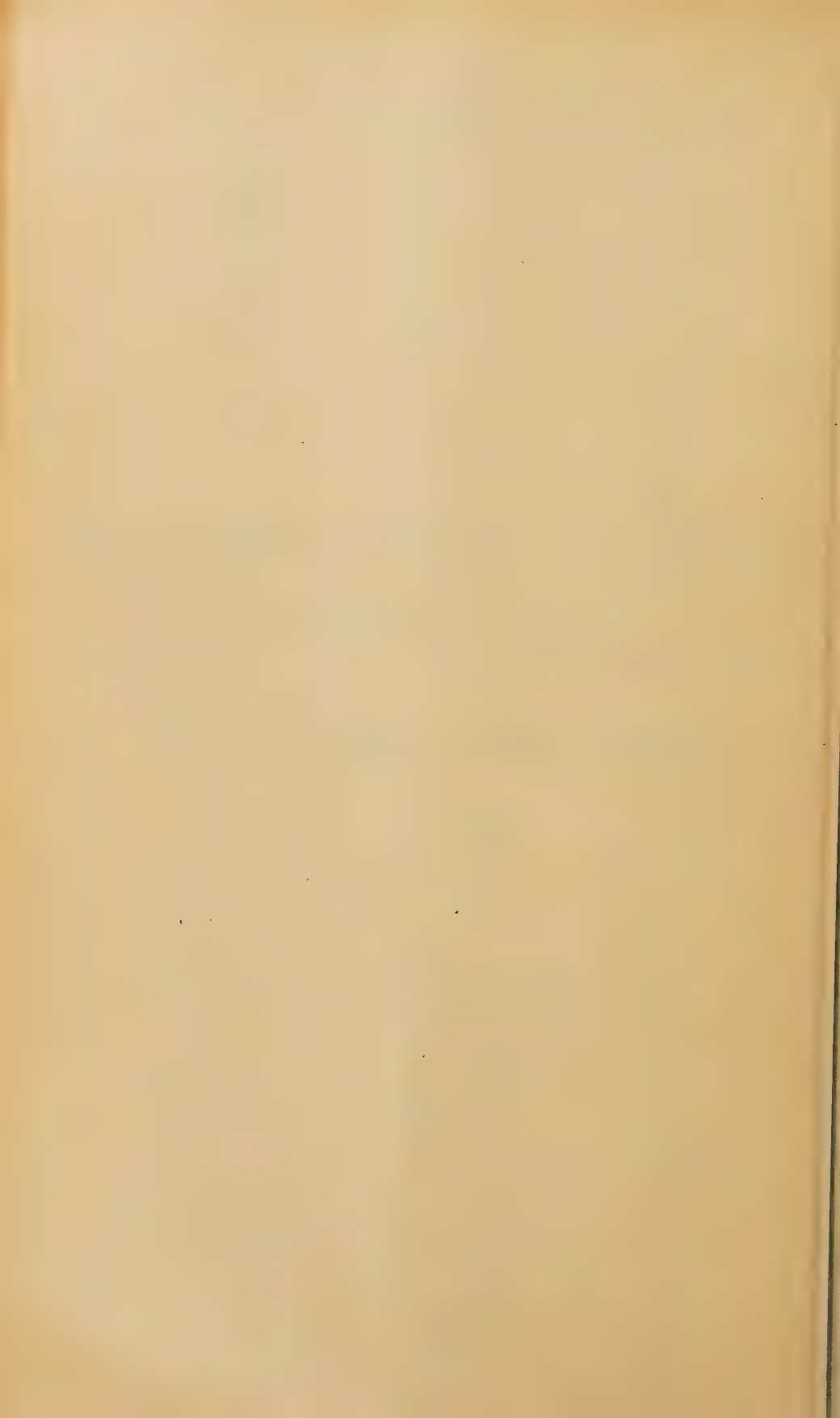
(LEEWARD ISLANDS)

VETERINARY DEPARTMENT

Annual Report

FOR THE YEAR

1952



ST KITTS, NEVIS & ANGUILLA

VETERINARY DEPARTMENT

Annual Report for 1952.

The fortunate position enjoyed by the Presidency being free from any serious contagious or infectious disease continued during the year. Regulatory requirements in respect to importations of livestock from foreign countries, continue to provide adequate safeguards against the introduction of serious animal diseases.

The danger of Foot and Mouth disease being introduced into the Presidency, through trade routes by air and sea, from countries where this disease exists continues to be a matter of serious concern. The lesson was brought home in November of this year when an outbreak occurred in the neighbouring island of Martinique.

Satisfactory progress has been made during the past year in the control and eradication of Bovine Tuberculosis. The first survey of this disease was made in Anguilla.

This is the fifth successive year that the Presidency has remained free from Anthrax following the outbreak in Nevis during 1947. Pre-seasonal immunisation of livestock in Endemic Anthrax areas in Nevis is now carried out as a routine measure annually.

One of the most serious and constant problems of the islands is internal parasitism. A parasite survey and a parasite control scheme was started last year and progress has been satisfactory.

Routine examination of animals prior to importation and exportation continued during the year. Other routine duties included the issue of slaughter permits, clinical work both government and private, and the maintenance of the laboratory diagnostic service. Special projects included a tuberculosis survey in Anguilla, a parasite survey in St. Kitts and an Anthrax vaccination scheme in Nevis.

CENSUS FIGURES (1946).

Island.	Cattle.	Horses.	Mules.	Donkeys	Swine.	Sheep	Goats	Poultry
St. Kitts ...	3,175	301	373	163	1,003	670	392	5,518
Nevis ...	2,406	371	130	1,048	1,829	3,548	2,251	9,886
Anguilla ...	813	10	2	118	823	2,752	1,463	4,096
Presidential Total ...	6,394	682	505	1,779	3,655	6,970	4,206	19,500

DISEASE CONTROL.

In addition to numerous cases attended to as a routine measure, the following deserve special mention.

<i>Disease.</i>	<i>Animals Affected.</i>
Internal Parasitism	All Animals.
External Parasitism	All Animals.
Colic	Equines.
Anaplasmosis	Cattle.
Paroplasmosis	Cattle.
Tuberculosis	Cattle.
Streptococcal Mastitis	Cows.
Staphylococcal Mastitis	Goats.
Virus Influenza	Equine.
Mineral Deficiencies	Mainly Cattle.
Coccidiosis	Calves, Goats
Mange	Dog.
Leptospirosis	Dog.

PARASITISM.

Internal and external parasitism remains one of the major problems concerning livestock in the islands. The problem is being tackled in a twofold manner *viz*: parasite survey and control scheme. The survey is fairly complete, although a number of specimens have not yet been identified. During the year several thousand free doses of Phenothiazine have been distributed to estates, peasants, etc., in St. Kitts, Nevis and Anguilla, and there is little doubt that a continuation of this service over a period of time is bound to assist the position. Clinical trials were made with the following drugs and compounds: Phenothiazine, Ascaridole, Bedermin, Arsenicals, Antimony compounds, Carbon Tetrachloride, Tetrachlorethylene, Diethylcarbamazine, Hexylresorcinol, Methylbenzene

External parasites causing most trouble were, ticks, mange, mites and lice. The following preparations received clinical trial; Sudermox, Benzyl Benzoate Benzene Hexachloride, suspensions of Sulphur, D.D.T., Gammaxane compounds, Chlorbutanecresol, Monosulphids.

ANAPLASMOSIS AND PIROPLASMOSIS.

There were a number of cases of both these diseases in the Stapleton area and at Bayfords during the year. Treatment was fairly successful using Pirevan and Arsenicals.

MASTITIS.

This disease occurred regularly at Bayfords and throughout the island in both cattle and goats. It is felt that poor dairy hygiene is

largely responsible. Penicillin and Streptomycin used by intramammary infusion was very successful in most cases.

INFLUENZA.

An outbreak of acute virus influenza occurred in a racing stable during the year. Cases were characterised by high temperature, purulent nasal discharge, petechial hemorrhages of nasal and buccal mucus membranes, and extensive oedema of legs and body. All cases responded spectacularly to Aureomycin medication.

MINERAL DEFICIENCY.

Numerous cases seen during the year pointed to mineral deficiencies. It is felt that there is a great need for investigational work to be carried out in this sphere of nutrition.

PARASITE SURVEY.

During the year information was collected, surveys and laboratory work done, in connection with the internal parasites of livestock in this area.

A paper was published on the results of findings in connection with Canine Filariasis (Veterinary Record. 64.454).

The summary of this paper was as follows:—

(a) Dermatitis or eczematous skin lesions with intense irritation constituted the prominent feature in four cases of *D. immitis* infestation.

(b) A reliable technique for blood examination for the detection of *D. immitis* larvae is described.

(c) A note is given on treatment with Fouadin and Banocide.

A paper was prepared for publication on the findings of 150 faecal examinations in the dog. The following parasites were found.

TABLE 1. RESULTS OF 150 FÆCAL EXAMINATIONS.

<i>Parasite.</i>		<i>Number Positive.</i>	<i>% Positive.</i>
			%
<i>Ancylostoma</i> sp.	..	96	64.0
<i>Toxocara Canis</i>	...	13	8.7
<i>Toxascaris Leonina</i>	...	11	7.3
<i>Taenia</i> sp.	...	6	4.0
<i>Trichuris Vulpis</i>	...	1	0.7
<i>Dipilidium Caninum</i>	...	3	2.0
Totals	...	130	86.7

TABLE 2. INCIDENCE OF MULTIPLE INFESTATIONS.

<i>Parasites.</i>	<i>No. of Animals.</i>
<i>Ancylostoma</i> sp. ...	4
<i>Toxocara canis</i> . . .	1
<i>Ancylostoma</i> sp. ...	1
<i>Toxascaris</i> sp. . .	2
<i>Ancylostoma</i> sp. ..	2
<i>Taenia</i> sp. . .	1
<i>Toxocara canis</i> ...	1
<i>Trichuris vulpis</i>	

Another paper was prepared giving a list of internal parasites found in all classes of livestock as follows:—

Horse. (1) *Oxyuris equi*. (2) *Strongylus vulgaris*. (3) *Strongylus equinus*. (4) *Ascaris equorum*.

Cattle. (1) *Haemonchus contortus*. (2) *Dictyocaulus viviparus*. (3) *Ostertagia ostertagi*. (4) *Trichostrongylus* sp. (5) *Oesophagostomum* sp.

Sheep & Goat. (1) *Haemonchus contortus*. (2) *Moniezia* sp. (3) *Oesophagostomum* sp. (4) *Trichostrongylus* sp. (5) *Trichuris ovis*. (6) *Dictyocaulus* sp.

Pig. (1) *Ascaris lumbricoides*. (2) *Stephanurus dentatus*. (3) *Metastrongylus* sp.

Dog. (1) *Ancylostoma caninum*. (2) *Toxocara canis*. (3) *Toxocaris leonina* (4) *Dipilidium caninum*. (5) *Trichuris vulpis*. (6) *Taenia* sp. (7) *Dirofilaria immitis*.

Poultry. (1) *Oxyspirura mansoni*. (2) *Ascaridia galli*.

ANTHRAX CAMPAIGN.

A serious outbreak of Anthrax occurred in Nevis during the latter part of 1947, taking a serious toll of animals and several human lives. No cases have been recorded since that date due to the annual anthrax vaccination scheme. The following animals were vaccinated during the year.

<i>Area.</i>	<i>Sheep.</i>	<i>Goats.</i>	<i>Cattle.</i>	<i>Total.</i>
Brown Hill	156	165		321
Cox Heath	20	40		60
Bath Village	15	120		135
Low Ground	75	40		115
White Hall	81	88	65	234
Round Hill			7	7
Total	347	453	72	872

LIVESTOCK IMPROVEMENT.

The scope and efficiency of the Veterinary Service has been improved by the new posts of Senior Stock Inspector and Stock Inspector. Both Nevis and Anguilla now have a resident stock Inspector and they are doing valuable work. Their duties include:—

1. Instruction and help in animal husbandry methods and care of animals in country districts.
2. Simple treatment and first aid for peasant stock etc.
3. Distribution of phenothiazine for parasite control scheme.
4. Anthrax vaccination.
5. Tuberculin testing.
6. Disease reporting.

Detailed monthly reports are sent to the department by these officers, giving general information as regards climate and animal health, as well as all visits and cases attended to.

FOOT AND MOUTH DISEASE.

An outbreak of this dread disease occurred in the island of Martinique towards the end of the year, and threatened the livestock industry in the entire Caribbean area. A meeting of the Veterinary Committee of the British Caribbean Advisory Council on Agriculture, Animal Health and Husbandry, Forestry and Fisheries, was convened in Trinidad very shortly afterward to discuss measures to prevent this disease from entering the British territories. The Veterinary Officer represented the Leeward Islands at this meeting.

Consequent on this meeting, Government took the following precautionary measures:—

(a) Legislation was enacted prohibiting the entry of all animals, animal products, meat, straw etc. from the French West Indies, the neighbouring Dutch islands, Venezuela and Columbia.

(b) Movement of all livestock etc. to and from territories at present free from this disease was reduced to an absolute minimum.

(c) No livestock etc. can be imported from areas where there is no resident Veterinary Officer.

(d) Travellers on aircraft and ships, are required to disinfect their footwear on mats provided for that purpose, on arrival at airports and other ports of entry.

(e) Press releases were made informing the public of the outbreak in Martinique, warning it of the serious possibilities of spread, and giving an outline of the symptoms etc.

(f) A system was instituted for reporting any suspicious symptoms of this disease.

It was also decided at the conference what steps should be taken in the event of an outbreak in any territory.

It is sincerely hoped that this outbreak will be kept under control and eventually eradicated.

ANIMALS EXPORTED DURING 1952.

<i>Country of Destination.</i>	<i>Horses.</i>	<i>Donkeys.</i>	<i>Mules.</i>	<i>Dogs.</i>
N.W.I.	1	—	—	4
Barbados	10	12	4	—
Trinidad	—	2	—	—

ANIMALS IMPORTED DURING 1952.

<i>Country of Origin.</i>	<i>Cattle.</i>	<i>Horses.</i>	<i>Sheep.</i>	<i>Pigs.</i>	<i>Goats.</i>	<i>Dogs.</i>
N.W.I.	1	—	—	—	6	—
Barbados	—	1	3	3	3	7
Antigua	—	—	4	1	—	—
Trinidad	—	1	—	—	—	—

VETERINARY LEGISLATION.

During the year the following legislation was enacted:—

(a) The landing of Animals Prohibition No. 2 Order 1952 (S. R. & O. 9/1952) prohibited the landing of dogs and cats in the Presidency, except such dog or cat is imported directly from Great Britain, Northern Ireland, Eire, Jamaica or Barbados.

(b) The landing of Animals Prohibition Order 1952 (S. R. & O. 4/1952) prohibits the landing of animals from Trinidad.

(c) The landing of Animals Prohibition (Amendment) Order 1952 (S. R. & O. 10/1952).

(d) By S. R. & O. 7/1952 Rabies was declared to be a dangerous infectious disease within the meaning of the Public Health Ordinance 1950.

Bovine Tuberculosis Survey:—

This is the first survey of Bovine Tuberculosis to be made in Anguilla. No draught type cattle are kept in the island, and a relatively small number of dairy type animals are kept solely for milk purposes.

The majority of these animals have been inbred over generations and are on the main small, stunted and prone to hereditary defects. Nevertheless it was felt that a survey should be undertaken as the milk is used for human consumption.

There is no system of meat inspection on the island and tuberculosis if present in the carcase would go undetected. It was thought advisable for these reasons to ascertain the picture in respect to this disease.

Areas Tested:—

For convenience the island was divided into six areas for the survey.

1. The Quarter and Stony Ground.
2. East End Area.
3. Sandy Ground Area.
4. South Hill Area.
5. Valley District.
6. West End Area.

Result of Test:—

<i>Number of Animals tested.</i>	<i>Positive Reading.</i>	<i>Negative Reading.</i>	<i>%Positive Reading.</i>
143	5	138	3.5%

Result of areas Tested:—

<i>Area.</i>	<i>No. of Animals.</i>	<i>Positive.</i>	<i>Negative.</i>	<i>Positive.</i>
The Quarter	25	3	22	12.0%
East End	25	—	25	—
Sandy Ground	23	—	23	—
South Hill	28	2	26	7.1
Valley District	22	—	22	—
West End	20	—	20	—

Nature of Test:—

The Intradermal tuberculin test was used for this survey and readings made at the 72nd hour.

Intradermal injections were made, using .05 to (25% Kot equivalent) into the caudal fold at the base of the tail.

Conclusions:—

The incidence of bovine tuberculosis in Anguilla is established and found to be 3.5% of tested animals. It is felt that the poor type animals and hereditary defects due to inbreeding are largely responsible for the relatively high incidence of the disease. Taking into consideration the areas tested as representative of island conditions, the degree of infection

present is such that could be eliminated and controlled. The immediate solution of the problem of disposal of positive animals is not easy.

RETURN OF ANIMALS SLAUGHTERED AT PUBLIC MARKETS.

<i>Animals.</i>	<i>B/terre.</i>	<i>Sandy Point.</i>	<i>Charlestown.</i>	<i>Gingerland.</i>	<i>Totals.</i>
Cows	223	10	10	8	251
Bulls	284	11	116	12	423
Steers	121	—	8	—	129
Heifers	35	—	6	—	41
Sheep	1548	8	765	295	2616
Goats	845	5	823	279	1952
Pigs	466	34	415	305	1220
Totals	3522	68	2143	899	6632

SLAUGHTERING IN NEVIS.

<i>Year.</i>	<i>Cattle.</i>	<i>Sheep.</i>	<i>Goats.</i>	<i>Swine.</i>	<i>Totals.</i>
1945	153	1008	1007	688	2856
1946	165	1269	1478	818	3730
1947	166	1241	1101	785	3293
1948	197	1048	1432	652	3329
1949	230	898	1234	474	2836
1950	203	701	756	343	2003
1951	140	560	594	384	1678
1952	160	1060	1102	720	2042

COMPARATIVE SLAUGHTERINGS BASSETERRE.

<i>Year.</i>	<i>Cattle.</i>	<i>Sheep.</i>	<i>Goats.</i>	<i>Swine.</i>
1945	608	2086	860	1165
1946	567	1988	878	1087
1947	541	3067	1700	737
1948	745	1905	1236	607
1949	690	1640	1081	334
1950	427	1387	793	323
1951	640	1794	562	995
1952	663	1548	845	466

Clinic and Laboratory:—

A diagnostic service was maintained throughout the year and included blood and faecal examinations, post mortems and the examination and identification of parasites. Numerous clinical and surgical cases were attended to both at the surgery and in the field.

Staff:—

The staff of the Veterinary Department consisted of a Veterinary Officer, a Senior Stock Inspector (Nevis), a Stock Inspector (Anguilla) and a clerical assistant.

A. W. VAUGHAN, M.R.C.V.S., F.R.E.S.,
*Government Veterinary Officer,
 St. Kitts, Nevis and Anguilla.*

PART IV.

REPORT

OF THE

AGRICULTURAL DEPARTMENT,

MONTSERRAT

(LEEWARD ISLANDS)

FOR THE YEAR

1952



Report of the Agricultural Department, Montserrat, Leeward Islands, for the year 1952.

AGRICULTURAL PRODUCTION.

1. WEATHER. Rainfall recorded at the Grove for 1952 was 78.75 inches. This is 17.91 inches higher than the mean for 52 years. Distribution was not favourable for agriculture. There were severe dry spells in March, May and June, and the weather from July to November was mostly wet.

2. There was a very severe rainstorm over the section of the island around Chances Mountain during the night of the 18th November. Some rainfall figures for the 24 hours ended early on the morning of the 19th November were:

Grove	....	10.40 inches
Rileys	....	8.26 "
Olveston	...	6.80 "
Gages	....	6.50 "
Dagenham	....	5.50 "
Amersham	....	5.50 "

Most of this rain fell during a period of about seven hours. Much damage was caused by the very heavy torrential flows of water through the ravines and guts which drain water from the area where the storm fell. Bridges and sections of roads were destroyed. A total of several acres of agricultural land along gut sides was washed away, and over many more acres crops such as newly planted tomatoes and food crops were washed out of the ground.

3. COTTON. The island's production of clean lint amounted to 39,205 lbs. and of stained lint to 46,679 lbs from an acreage of 3,683 acres, an average yield of 119 lbs. of clean lint and 13 lbs. of stained lint per acre. Production and yields in recent years are shown in A.

TABLE A.

Year.	Total lint produced. lbs.	Stained lint as % of total crop. —	Clean lint produced. lbs.	Total lint per acre. lbs.	Clean lint per acre. lbs.
1943	643,983	5.0	611,752	161	153
1944	602,339	5.4	569,534	196	185
1945	551,517	6.7	514,349	146	136
1946	364,805	4.6	347,977	145	138
1947	283,508	10.7	253,008	107	95
1948	690,889	8.3	633,708	200	184
1949	633,966	7.3	587,917	166	154
1950	400,191	10.4	358,580	112	100
1951	619,425	8.2	568,925	195	179
1952	485,884	9.6	439,205	132	119

4. Table B shows the acreages planted under various systems of tenure or cropping in 1952 and for the previous nine years.

TABLE B.

Year.	Estate Cultivation.	Peasants' freehold or rented lands.	Share Cropping.	Total.
	acres	acres	acres	acres
1943	1,035	1,673	1,297	4,005
1944	1,002	1,152	920	3,074
1945	1,062	1,726	982	3,770
1946	809	1,075	637	2,521
1947	894	1,137	628	2,659
1948	981	1,601	865	3,447
1949	1,125	1,191	789	3,825
1950	1,072	1,869	635	3,576
1951	978	1,514	680	3,172
1952	976	1,946	761	3,683

5. The planting season opened on the 11th February, and closed on the 19th April. Weather conditions were unfavourable for cotton throughout the island. The February--planted cotton showed promise of a good crop until the onset of a prolonged dry spell in May and June. This caused a heavy fall of flowers and young bolls, which reduced yields by some 50 per cent. Wet weather just before and during the harvesting period of cotton planted in March and April caused heavy black-bolling, resulting in a big loss in yield. In some areas only one picking was possible. Pink bollworm infestation was heavy on late cotton. The close season began on the 1st November.

6. The general price for clean seed cotton was 34 cents per lb. The whole crop of clean lint was sold to the Raw Cotton Commission at the following prices:

Grade	1	2x	2	3x	3	4x	4 and below
	67	66½	66	65½	65	64½	64 pence per lb f.o.b.

7. LIMES AND LIME PRODUCTS. Exports of limes and lime products for 1951 and 1952 are set out in Table C., together with annual totals expressed in terms of barrels of fruit. In calculating these annual totals 7½ gallons of raw lime juice were taken to represent one barrel of lime fruits and 1 lb. of distilled lime oil was taken to represent three barrels of lime fruits. No conversion was made in respect of scented oil as this product is usually obtained from limes which are afterwards crushed for juice production.

8. This crop is grown mainly on one group of estates on the seaward side of the island, but there are trees scattered here and there throughout the island.

TABLE C.

Year.	Green Limes.	Raw Lime Juice.	Ecuelled Oil.	Distilled Oil.	Total calculated as limes.
	barrels	gallons	lbs.	lbs.	barrels
1951	38	44,767	917	80	6,247
1952	19	31,482	462	4	4,229

9. SUGAR CANE. About 200 acres of sugar cane are grown on three estates situated in the centre of the island, mostly at altitudes not suited to cotton, and another 10 acres are grown by peasants in the same locality. All cane grown is used for the manufacture of rum.

10. TOMATOES. The volume of tomato exports to Canada has remained below pre-war figures, partly because of lack of frequent, certain and regular cool storage shipping. Exports of tomatoes by countries of destination for 1952 and the two previous years are set out in Table D. The figures for 1952 show a sharp drop as compared with those for the two previous years, partly because cotton was planted earlier than usual, and, with an increased price for cotton, growers showed more interest in cotton than in tomatoes. Some data on prices received for tomatoes is given in paragraph 43.

TABLE D.

Year.	DESTINATION.			
	West Indies.	Canada.	Bermuda.	Totals.
	lbs.	lbs.	lbs.	lbs.
1950	60,093	201,660	11,040	272,793
1951	86,730	218,370	32,430	337,530
1952	86,730	29,640	29,310	145,680

11. FOOD CROPS. Severe periods of dry weather adversely affected the production of sweet potatoes, corn and some other food crops for much of the year, and supplies for local consumption were often no more than moderate. Export figures based on data collected from export warrants are set out in Table E. The destinations of the

tomatoes are set out in some detail in a preceding paragraph. The most important markets for some other items were:—

carrots	....	Trinidad
mangoes	....	Bermuda
cabbages	....	Barbados
pumpkins	....	Bermuda

TABLE E.

Bananas	....	2,060 lbs.
Breadfruit	....	2,755 "
Carrots	....	62,960 "
Coconuts	....	39,966 "
Corn	....	1,276 "
Cauliflower	....	50 "
Cabbage	....	2,537 "
Limes	....	3,385 "
Mangoes	....	23,340 "
Onions	....	240 "
Pears, Avocado	....	8,125 "
Potatoes, Sweet	....	3,672 "
Pineapples	....	495 "
Pumpkins	....	11,476 "
Pigeon peas	....	75 "
Shallots	....	12,607 "
Tomatoes	....	145,680 "
Unclassified fruits and Vegetables	....	20,299 "

12. MISCELLANEOUS AGRICULTURAL EXPORTS. Other agricultural exports included:

Bengal beans	....	150 lbs.
Cocoa	....	100 "
Tamarinds	....	68870 "

13. FOREST PRODUCTS. It is estimated from figures kindly supplied by estates that some 29,000 feet of commercial timber was cut for boards, scantlings etc. during the year. Most of it was used for house building and repairs. Some was used for furniture making. In addition, approximately 1,300 bundles of cedar shingles and 10 bundles of other shingles were made. The value of this timber and boards, together with that of the shingles, has been estimated at \$17,500, a figure which does not include the value of the very considerable amount of timber of the poorer species cut and used for building kitchens, fencing and so on or the value of the large quantities of charcoal burned and used in the island.

14. The above figures emphasize that the forests of Montserrat are not without direct monetary value, although their value in protecting agricultural land from the effects of erosion, as windbreaks and in conserving water is, of course, greater.

15. **LIVESTOCK.** One estate maintains a herd of working cattle, and owners of two or three other estates are interested in the development of herds of cattle for beef and milk production. A large proportion of the cattle of the island is in the hands of peasants, many of whom keep one or two cows. There is in the local cattle a fair percentage of Zebu foundation. Efforts have been made during the past four years or so to improve the cattle of the island by the introduction of Red-Poll-Senegal sires, of which there were five in the island during 1952, four of which were owned by the Government. One is privately owned. There is now a considerable number of promising young cattle showing strongly the Red poll characteristics. This type of cattle seems to respond well to reasonably good feeding and management. It should, perhaps, be recorded that the Red Poll-Senegal breed has not yet found universal favour among the livestock-keepers of the island, some of whom prefer the Zebu to which they have long been accustomed.

16. The severe periods of dry weather experienced during the year again accentuated the usual shortage of good fodder in the island. There is need for development in the feeding and management of livestock as well as in the improvement of the types of animal.

17. Locally-produced supplies of meat, milk, poultry and eggs were inadequate to meet the demands of the community.

18. There were no serious outbreaks of disease among livestock during the year.

19. The control by the Agricultural Department of the slaughter of female stock for meat and the registration with the Police or Municipal authorities of all slaughterings for meat continued. These controls have some effect in the maintenance of a supply of breeding stock and in checking the theft of small stock. The numbers of slaughterings recorded in 1952 are set out in Table F.

TABLE F.

<i>Class.</i>	<i>Male.</i>	<i>Female.</i>	<i>Totals.</i>
Cattle	255	108	363
Goats	296	176	473
Sheep	346	170	516
Pigs	232	82	314

20. **STATISTICS OF EXPORTS AND IMPORTS.** Statistics of the principal exports and of certain imports during 1952 are given in Appendices A and B. Items of imports which have been included are those which affect agricultural production or which illustrate the degree to which the Presidency is dependent upon outside supplies of staple foodstuffs.

THE AGRICULTURAL DEPARTMENT.

21. **COTTON STATION.** The production of pedigree seed of the Montserrat Sea Island strain of cotton is centralized at this Station. An outline of the progress of this work together with investigational work on cotton for the year under review is embodied in the Report of the Cotton Officer for the West Indies, Mr. J. V. Lochrie, O.B.E. The investigational work included manurial trials on Brown Earth, Shoal, Alluvial and Fresh Ash soils. Experimental work with insecticides aimed at investigating the control of pink boll-worm by DDT.

22. **COTTON SEED MULTIPLICATION** The routine of seed multiplication was carried on as usual, and 103,219 lbs. of cotton seed was sold to growers for planting the island crop. Supplies of seed sent to other islands during the year are shown in Table G.

TABLE G.

<i>Islands</i>	<i>Pedigree seed</i>	<i>3rd Multiplication seed</i>
Nevis	200 lbs.	89,645 lbs.
St. Kitts	200 "	—
St. Lucia	—	829 "

23. **COTTON MANURIAL TRIALS.** Nitrogen experiments on Fresh Ash and Alluvial soils were laid down at Richmond and Trant respectively. The object was to investigate the responses to applications of nitrogen at various levels and at various stages in the growth of the plant. Adverse weather conditions prevented these experiments from yielding any statistically significant results.

24. Experiments on Shoal and Brown Earth soils were laid down at Olveston and Amersham respectively to investigate the effects of nitrogen, phosphate and potash. There were two levels of application of each fertilizer, *viz.* :

Nitrogen	(1) 100 lbs	sulphate of ammonia—per acre	
	(2) 200 "	"	" "
Phosphate	(1) 150 lbs.	superphosphate per acre "	
	(2) 350 "	"	" "
Potash	(1) 150 lbs.	sulphate of potash per acre	
	(2) 300 "	"	" "

At Olveston there was a fair increase from superphosphate, and at Amersham a fair increase from sulphate of potash at 150 lbs. per acre. Both results just failed to be statistically significant under the weather conditions experienced.

25. SEVEN YEAR ROTATIONAL TRIAL. The Rotational Trial at Parsons was brought to a close in 1952, two years earlier than was originally intended. The results were summarized in the Department's Report for 1951.

26. COTTON VARIETY TRIAL. The variety M.S.I. was compared with the varieties B.D., V.H. 10 and 6 strains of V.H. 8 in an experiment at Reids Hill. All varieties gave lower ginning percentages than the same varieties grown in Antigua, but the V.H. 8 strains ginned relatively much lower. In yield M.S.I. and V.H. 10 were significantly better than B.D. and V.H. 8—4602, which in turn were significantly better than V.H. 8—4601 and V.H. 8—4621.

27. INSECTICIDE TRIALS. Simple trials were laid down at Richmond, Olveston, Reids Hill, Trants and Bethel to investigate the control of pink boll-worm in the field by DDT. The insecticide was applied in the form of a spray using 4 lbs. DDT wettable powder per acre, in 30 gallons of water. Applications were made at 10 to 14 day intervals. There was no indication of control of pink boll-worm in the field by DDT.

28. GROVE AGRICULTURAL STATION. Grove Agricultural Station was used for the demonstration of soil conservation measures, for observation plots of various crops and as a source of supply of planting material. Planting material distributed from the Station in 1952 is summarized in Table H. The Station is also used for resting stud animals in the intervals between "farming-out".

TABLE H.

Budded lime trees	...	3,011
Budded orange trees	....	70
Budded grapefruit trees	....	31
Grafted mango trees	....	35
Pineapple plants	....	12
Decorative plants	....	228
Cabbage and Cauliflower plants		64
Yams (lbs.)	....	315
Sugar cane cuttings	....	4,000
Sweet potato vines	....	400
Fodder grass cuttings	....	16,647
Onion plants	....	7,280
Tomato plants	....	42,550

29. **LIVESTOCK.** At the close of the year the Department owned the following livestock:

AT BRADES STUD CENTRE.

Bull, Red Poll-Senegal
 Cow, Grade Zebu
 Heifer, Grade Zebu x Red Poll-Senegal
 Boar, Large Black
 Sow, Large Black
 Ram, Grade Black Head Persian

AT PARSONS STUD CENTRE.

Jack
 Bull, Red Poll-Senegal
 Cow, Grade Zebu
 Heifer, Grade Zebu x Red Poll-Senegal
 Heifer, Grade Zebu x Red Poll-Senegal
 Boar, Large Black
 Sow, Large Black
 Two working donkeys

AT GROVE AGRICULTURAL STATION.

Bull, Red Poll-Senegal

FARMED—OUT.

Bull, Red Poll-Senegal.

30. Service by the Department's stud animals at the stud centres or "farmed-out" at Galways, Rileys or Tar River estates are set out in Table I.

TABLE I.

	<i>Bulls.</i>	<i>Boars.</i>	<i>Rams.</i>	<i>Jack.</i>
Brades	20	81	38	—
Parsons	19	10	—	14
Galways	18	—	—	—
Grove	14	—	—	—
Rileys	2	—	—	—
Tar River	11	—	—	—
Totals	84	91	38	14

31. **BRADES INVESTIGATION AND STUD CENTRE.** A considerable part of the ten acres of the Brades Centre is established in contour strips of elephant grass and other fodder grasses. These provide fodder for the livestock at the Centre and a small amount of planting material for distribution. The site of this centre was chosen with a

view to investigating methods of building up the impoverished soils of the district. Soil conservation work on the Centre has checked erosion, and the cover of fodder grasses may have checked the decline in soil fertility, but any improvement in soil fertility is, so far, slight.

32. **PARSONS INVESTIGATION AND STUD SETTLEMENT.** An area of about 25 acres at Parsons was rented by the Department from the Otway Peasant Land Settlement for use as a stud centre and for experimental and nursery work.

33. **OTWAY PEASANT LAND SETTLEMENT.** The year 1952 was the eighth year of the Settlement. During the year there were about 300 tenants on the Settlement, renting about 400 acres of cotton holdings and 150 acres of provisions holding.

34. Tenants grew cotton, tomatoes and food crops. The yield of cotton on the Settlement, like that on the rest of the island, was seriously reduced by the effects of the weather. The weather also reduced yields of provision crops. The tomato crop in 1952, though small, was profitable.

35. Many of the tenants each keep one or two head of cattle. Some keep small stock. Many of the tenants are quite alive to the value of dressings of pen manure to their holdings, but there is scope for the spread of this desirable practice.

36. The citrus groves in Spring Gut were maintained and extended during the year. Some damage was caused by the severe rainstorm of the 18th November.

37. **PARSONS GINNERY.** This ginnery situated on the Otway Settlement was operated as usual, mostly handling the cotton grown on the Settlement. The following figures indicate the size and outturn of the crop:

Quantity of clean seed cotton bought	....	117,693 lbs.
Clean lint shipped to Raw Cotton Commission	....	35,550 „
Overall ginning outturn of clean lint	....	30.2%

The 101 bales of lint ginned (99 from settlers and 2 from the Grove Agricultural Station) were graded by the Raw Cotton Commission as follows:

Grade	1	2X	2	3X	3	4	5X
Bales	6	23	42	17	8	1	4

38. A new 25 horse power Crossley oil engine for driving the cotton gins was installed during the year in a new engine room specially built to house it. Much other work of renovation to the ginnery building was done.

39. OTWAY PEASANT LAND SETTLEMENT ADVISORY BOARD. This Board was re-constituted in July, and held monthly meetings for the remainder of the year.

40. SOIL, WATER AND FOREST CONSERVATION. Eight part-time Forest Rangers were employed, and the Forest Officer, and later the Acting Forest Officer, visited all districts under forest with them several times during the year. There were fifteen prosecutions for breaches of the Forest Ordinance of 1946.

41. Apart from their commercial value as a source of supply of a useful quantity of timber and charcoal, the forests of Montserrat have a very great protective value. Forested and wooded land at almost all altitudes in Montserrat serve an invaluable purpose in conserving water, as windbreaks and, most of all, in preventing or checking the flow of water (and with it rock debris and soil) from the upper lands to the lower. It is feared that many people, perhaps including some owners of forest, are not fully alive to these values. The æsthetic value of the forests of Montserrat is considerable.

42. The Agricultural Department supervized the carrying out of soil conservation work on 20 acres during the year. This brings the total area in the island on which some measures of soil conservation have been carried out by estate owners, by the Department or others, to approximately 1,820 acres. The reduction of slopes and the building-up of terraces where soil conservation barriers have been established for a few years is very evident. There is need for appreciation and understanding that soil conservation measures need a certain amount (not a lot) of care and maintenance.

43. GOVERNMENT MARKETING DEPOT. The tomato crop was small. The Government Marketing Depot packed 1,832 thirty-lb. crates, comprising 1608 crates packed from tomatoes purchased by the Government Marketing Depot and 224 packed on behalf of the private buyers. Table J sets out the average expenses and net and gross receipts in B.W.I. currency for these tomatoes sent to the various destinations. The figures for expenses for Bermuda, Trinidad and Barbados include the cost of freight.

TABLE J.

<i>Destinations.</i>	<i>Number of 30—lbs. crates</i>	<i>Expenses per crate</i>	<i>Net receipts per crate</i>	<i>Gross receipts per crate</i>
	<i>\$ c.</i>	<i>\$ c.</i>	<i>\$ c.</i>	<i>\$ c.</i>
Canada (St. John and Halifax) ...	988.00	1.40	3.23	4.63
Bermuda ...	295.00	2.86	5.37	8 23
Trinidad and Barbados	335.00	1.62	2.23	3.85
Locally ...	214.00	1.19	3.61	4.80
	1832 00	—	—	—

44. THE GOVERNMENT MARKETING DEPOT imported and retailed vegetable seeds and handled planters' and private packers' requirements of vegetable packing materials.

45. SHIPMENT OF LINT. The Department handled shipments of, and made payments for, cotton lint shipped to the Raw Cotton Commission.

46. COLD STORAGE DEPOT. The cold storage plant which is operated by the Agricultural Department and allied to the Marketing Depot continued to manufacture ice and to provide cool storage for fish, meat and other perishable articles. Fruit and vegetables awaiting export were cool-stored by this plant. Extensive renovation of the insulated walls and ceilings of the eight cool chambers and of the brine service pipes was completed by the Public Works Department early in the year.

47. CORN MILL. The corn mill operated by the Government Marketing Depot was available throughout the year. Partly because of unfavourable weather the island's corn crop was small. The mill ground or cracked $10\frac{1}{2}$ tons of corn during the year.

48. COTTON CLOSE SEASON INSPECTION. The Department continued to carry out the inspection of cotton fields, ginneries and cotton storehouses, especially during the close season for cotton.

49. DISINFESTATION OF GINNERIES AND COTTON STOREHOUSES. The island's ginneries and cotton storehouses were twice disinfested by the department, chiefly against pink boll-worm; once before the cotton picking season with DDT or Gammexane emulsion and once after the ginning season with Gammexane smoke generators.

50. INSPECTION OF SEED COTTON. The Department maintained the system of inspecting all seed cotton before purchase for ginning.

51. AGRICULTURAL CREDIT. At the Otway Peasant Land Settlement the Department made advances to settlers while they were cultivating for their cotton crop, recovering the money advanced from payments for seed cotton.

52. Some work was done on the formulation of a plan for the issue of credit for pasture development. A senior agricultural instructor, with the manager of a local estate, visited the British Virgin Islands to study the working of a pasture development scheme established in that Presidency.

53. METEOROLOGICAL AND SEISMO-VOLCANOLOGICAL. Meteorological observations were recorded at the Grove Botanic Station and, by the co-operation of a private observer, at a station on the windward side of the island. These observations, together with rainfall returns supplied by the courtesy of various planters, were tabulated by the Department. Monthly rainfall figures are recorded in Appendix C. The Department carried out the usual duties of hurricane observation. Two Jagger earth shock recorders were kept in operation at the Grove Agricultural Station. Two fairly mild earth tremors were recorded in August. Periodical visits were made to Galways and Gages Upper soufrieres. The soufrieres showed no signs of any important change until the heavy rainstorm of the 18th November caused severe landslides in both soufrieres. These landslides caused old vents to close and others to open.

54. VISITORS. Mr. P. Martin-Kaye, Government Geologist, Leeward Islands, visited the Department in May.

55. Mr. J. R. Spence of the Central Cotton Station, Leeward Islands, visited the island in November.

56. Mr. E. D. Bennett of the Commonwealth Bureau of Biological Control visited the island from the 19th to the 24th November.

57. STAFF. Mr. W. E. Bassett, M.B.E., Agricultural Superintendent was away from the Presidency, on overseas leave, from 10th April to the 22nd December. Mr. G. L. Bellot of the Agricultural Department, St. Kitts, acted as Agricultural Superintendent throughout this period.

58. Mr. Cyril A. Taylor, Senior Agricultural Instructor, left the island in September to study livestock management in the United Kingdom.

W. E. BASSETT,
Agricultural Superintendent.

APPENDIX A.

AGRICULTURAL EXPORTS, 1952.

<i>Commodity.</i>	<i>Unit.</i>	<i>Quantity.</i>	<i>Value.</i> \$
Cotton lint, clean	lbs.	438,774	578,418
do. stained	"	67,339	26,584
Cotton seed	"	89,939	2,020
Cotton seed meal and cake	"	353,355	15,710
			622,732
Limes, fresh	lbs.	3,385	204
Lime juice	gals.	31,482	27,215
Lime oil, distilled	lbs.	4	30
Lime oil, ecuelled	"	462	5,976
			33,425
Tomatoes	lbs.	147,197	23,381
Carrots	"	62,960	7,453
Shallots	"	12,193	2,431
Miscellaneous fruit and vegetables	"	60,534	5,539
			38,804
Sheep	No.	3	12
Poultry	"	32	64
Hides and skins	"	4,545	1,761
			1,837
Coconuts (includes some re-exports)	No.	33,107	1,255
Cocoa, raw	lbs.	100	48
Maize	"	1,526	113
Peanuts	"	50	15
Tamarinds	"	68,870	3,098
Timber (red cedar)	ft.	250	50
Total Agricultural Exports	---		701,377

APPENDIX B.

IMPORTS OF CERTAIN COMMODITIES, 1952.

<i>Commodity.</i>	<i>Unit.</i>	<i>Quantity.</i>	<i>Value.</i> \$
Biscuits	lbs.	29,525	9,133
Butter	"	6,547	8,038
Butter substitutes, oils, etc.	"	15,245	8,293
Cereal products	"	11,210	3,112
Cheese	"	12,136	9,975
Cocoa, prepared	"	5,432	3,821
Coconuts (includes some for re-exports)	No.	22,630	893
Cornmeal	lbs.	18,542	1,948
Coffee	"	1,061	2,024
Fish, dried, canned, etc.	"	168,552	46,086
Fruit, fresh	"	3,125	598
Fruit, preserved, canned, etc.	"	6,530	2,660
Flour	100 lbs.	17,409	160,558
Meats, canned, smoked, etc.	lbs.	66,750	33,167
Milk, powdered, etc.	"	8,117	3,566
Onions and garlic	"	12,037	1,540
Peanuts	"	452	325
Rice	"	263,553	25,472
Sugar	"	1,255,231	110,123
Vegetables	"	28,808	2,810
			434,142
Agricultural machinery	—	—	7,672
Animal feeding stuffs	lbs.	46,174	1,572
Molasses	"	2,927	777
Livestock and poultry	No.	11	771
Fertilizers	lbs.	14,288	861

APPENDIX C.

RAINFALL, 1952 (IN INCHES).

Months	Grove	Richmond	O'Garra	Oveston	Isles Bay	Elberton	Traits	White	Bethel	Paradise	Amersham	Bradys	Farnis	Farrells	Fairfield
January	3.70	4.61	3.18	4.15	4.00	3.72	3.13	2.90	3.65	3.71	5.77	2.64	2.14	7.77	5.81
February	4.54	3.18	4.77	5.01	3.31	2.75	3.01	3.30	2.93	4.57	6.95	3.34	3.64	6.35	5.29
March	2.44	1.72	1.08	2.75	1.72	1.51	1.80	2.60	1.99	4.46	2.43	3.00	1.70	4.18	2.15
April	5.94	5.42	2.87	7.63	8.13	4.54	4.70	5.78	4.21	5.05	3.77	5.96	4.43	6.48	4.58
May	2.60	2.33	Nil	4.32	3.42	2.16	1.86	4.00	1.54	4.58	6.17	9.43	1.35	5.02	1.89
June	3.87	3.34	2.93	5.01	3.42	2.47	3.43	2.25	3.40	3.65	4.17	2.64	3.69	3.36	3.86
July	10.24	8.41	7.62	9.83	10.07	7.23	6.52	5.10	7.14	7.74	11.19	7.53	6.62	8.30	11.21
August	8.26	7.44	8.61	7.65	7.00	7.13	7.72	7.76	9.08	12.07	6.21	7.46	9.34	11.41	9.24
September	10.30	9.34	7.05	11.55	9.25	9.33	9.69	5.28	10.61	11.03	2.89	7.46	10.53	12.36	10.13
October	7.35	6.63	3.92	7.72	7.51	5.68	3.51	3.61	4.55	5.99	8.22	4.35	4.90	7.19	7.72
November	15.97	8.06	8.18	10.55	8.02	8.85	6.73	8.00	7.57	6.89	11.47	7.06	5.96	11.94	10.83
December	3.54	2.34	.95	3.16	2.23	1.50	1.82	3.16	2.33	4.05	3.59	2.02	1.95	5.26	3.27
Total	79.75	62.88	51.17	79.33	68.08	56.87	53.92	63.74	59.00	75.79	79.23	62.89	56.25	89.62	75.98



PART V.

BRITISH VIRGIN ISLANDS

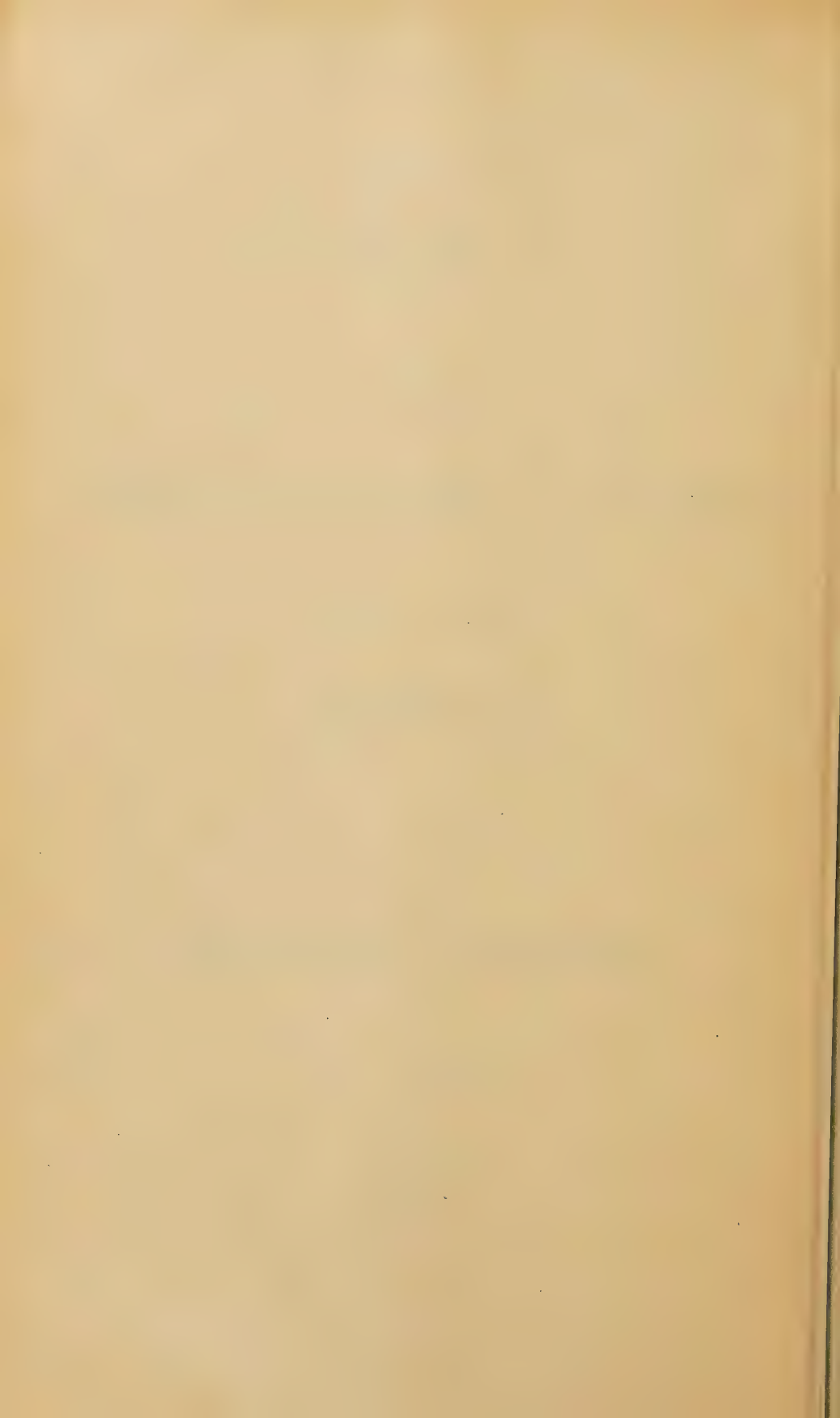
REPORT

OF THE

Department of Agriculture

FOR THE YEAR

1952



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STAFF.

<i>Agricultural Officer</i>	...	...	M. WINTER
<i>Agricultural Instructor</i>	...	...	U. DAWSON
<i>Petty Officer Class II</i>	...	...	I. EVANS
" " " "	...	...	R. HODGE
" " " "	...	...	C. GUMBS

BRITISH VIRGIN ISLANDS.

Report of the Department of Agriculture for the year 1952.

Section I:

REVIEW OF AGRICULTURAL PRODUCTION:

1. WEATHER CONDITIONS:

Weather conditions proved very favourable throughout the year. The total rainfall for the year as recorded at the Agricultural Station was 63.14 inches—the highest recorded in fifteen (15) years. Hurricanes that were located during the season passed the Virgin Islands without causing any damage.

Comparative rainfall figures are given in Appendix I.

2. PRODUCTION:

Production continues mainly by individual agriculturalists and produce is both for local consumption and export. The land is owned in the most part by the cultivators; there has been no change in the system of local land tenure.

The production of the Presidency has for the past years been far below its potential output. This situation was in the main caused by:—

(a) Uncertainty of markets.

(b) Lack of financial assistance to farmers.

During the year under review, a considerable change has taken place. In the first place, marketing has been much better with the addition of the Puerto Rico buyers.

Prices received for cattle, sheep and goats increased to 12c. per lb. and 14c. for swine, here on the hoof as compared with 8—10c. and 13c. for swine in 1951. Prices quoted are in U.S. Currency.

Agricultural credit which was made available has stimulated production especially with livestock.

3. SUGAR:

No sugar is manufactured. Sugar cane is cultivated for the purpose of rum manufacture. The estimated acreage in 1952 is 80 acres as compared with 50—70 acres in 1951. This increase is attributed to the quick sales and higher prices received for the rum produced.

4. COTTON:

No cotton is planted.

5. LIMES:

There is no increase in the area planted in limes, however, small shipments were made to the American Virgin Islands.

6. COCONUTS:

Dry and water nuts were exported to the American Virgin Islands during the year under review. There are indications that the area now planted under coconuts will increase over the next decade.

7. FOOD PRODUCTION:

Favourable weather conditions encouraged the planting of ground provisions and vegetables. Fair supplies were available for home consumption and export, but as stated in paragraph 2 above, the total production was much below the potential output.

8. LIVESTOCK:

Livestock were exported to the American Virgin Islands, the French West Indies and to Puerto Rico. Exports to the American Virgin Islands have shown a slight decline as compared with 1951, while exports to the French West Indies have shown a marked increase as shown in paragraph 9 below.

The health and condition of all kinds of livestock were considered good throughout the year. Several minor injuries of cuts etc. were treated and castrations of horses, mules, donkeys and cattle were performed.

There has been no recurrence of Hog Cholera in the Presidency since 1949. Seven hundred and fifty (750) pigs were vaccinated during the year.

It is gratifying to record that the Presidency continues to be free from any infectious and contagious disease.

9. LIVESTOCK EXPORTS:

(i) NUMBERS OF ANIMALS EXPORTED: The following are the numbers of animals exported during the year as compared with exports in 1951:—

Year:	Destination:	Cattle:	Sheep:	Goats:	Swine:
1951	St. Thomas	1,240	511	2,002	522
	French W.I.	267	—	—	—
	Puerto Rico	—	—	—	—
	Dominica	32	—	—	—
1952	St. Thomas	963	445	1,375	524
	French W.I.	363	—	—	—
	Puerto Rico	106	6	—	59

(ii) CLASS AND SEX ANALYSIS OF EXPORTS (1952)
(EXCLUDING FRENCH W.I.)

Cattle.				Sheep.		Goats.			Swine.		
Bulls.	Strs.	Cows	Hfrs.	Rams	Ewes	Bucks	Wths.	Does.	Boars	Barrs.	Sows.
658	28	256	127	226	219	604	16	755	17	229	337

Section II:

10. INVESTIGATIONAL WORK:

Investigational work was limited to trials of Tropical Kudzu on hill side paddocks at the Agricultural Station for the protection of badly eroded areas. Observation trials with sweet lime as a living fence for livestock was started during the year.

Section III:

EXTENSION AND DEVELOPMENT WORK:

11. TORTOLA AGRICULTURAL STATION:

Activities on the Station continued on a limited scale. The main lines of work were the maintenance of pedigree animals which provide breeding stock for farmers and a nursery for the supply of improved planting material.

As stated in last year's report, the paddocks comprise sixty-eight (68) acres of land, utilized as follows:—

Guinea Grass Paddocks	...	38 $\frac{3}{4}$ acres
Elephant Grass Paddocks	...	9 $\frac{1}{2}$ "
Guatemala Grass Paddocks	...	1 $\frac{3}{4}$ "
Mixed Paddocks	...	17 "
Arable	...	1 "
Total		68 acres

Ten (10) Nelthrop Bulls were purchased from St. Croix under Scheme D—1689, and sold to farmers at subsidized prices. These bulls are doing remarkably well. Three (3) bulls which were born on the Farm were also sold to farmers for use as sires.

12. CATTLE:

Eleven (11) $\frac{3}{4}$ Red Poll by $\frac{1}{4}$ Senegal calves were born on the Station during the year under review. Six (6) animals left the herd as shown below:—

Deaths—Accident	2	
Anæmia	1	3
Sales for breeding Bulls		3

The herd now comprises:—

<i>Bulls:</i>	<i>Bull Calves:</i>	<i>Cows:</i>	<i>Heifers:</i>	<i>Total:</i>
2	4	14	12	32

13. HORSES:

The Thoroughbred Stallion continues to do well. Considerable use is being made of him. As stated in last year's report, riding horses are also maintained on the Station, three (3) of which are owned by the Department and five (5) by Government officers who are required to travel on duty.

14. KENTUCKY JACK DONKEY:

This animal remained in excellent condition and was used for breeding both mares and janets.

15. BLACKHEAD PERSIAN SHEEP:

Although these animals have done well, it is felt that another breed should be tried. One pair of pure bred Black Head Persian lambs was purchased from the Central Experiment Station, Antigua. The ram imported from Antigua and one grade ewe died during the course of the year.

16. BERKSHIRE PIGS:

One litter of pigs was farrowed during the year, giving a total of five (5) piglets. Seven pigs were sold to farmers for breeding. Total number of pigs now at the Station=4.

17. ANGLO-NUBIAN GOATS.

The old buck still maintains his good condition. Ten (10) kids were born during the year; two (2) died and four (4) were sold to farmers for breeding purposes. Total number of goats now at the Station=8.

18. SERVICE RECORDS:

Services of Government Stud animals for the year are as follows:—

Name:	Number:
Stallion "Wise Medico"	39
Jack "Col Durway"	24
$\frac{3}{4}$ Red Poll x $\frac{1}{4}$ Senegal Bull "Arthur"	2
" " " " " " " " "Comando"	25
Blackhead Persian Ram Sheep	2
Anglo-Nubian Buck Goat	9
Berkshire Boar	32

19. IMPROVEMENTS:

The scale for West End, Tortola, referred to in last year's report arrived during the year and was installed.

20. DISTRIBUTION OF PLANTING MATERIAL:

The propagation of ornamental and economic plants was carried out in the small nursery that is maintained at the Station.

Distribution and/or sales of plants, seed etc. during the year are detailed below:—

Yam	500 lbs.
Sweet Potato Cuttings (Variety B—44)	2,820
Elephant Grass Cuttings	2,000
Grafted Mango Slips	20
Tomato Slips	203 doz.
Cabbage Slips	630 "
Pepper Slips	19 "
Sugar Cane Cuttings	1,980
Cassava Cuttings	2,100
Ornamental Plants	60

21. SOIL AND WATER CONSERVATION:

Work to a very limited extent was done during the year. Staffing difficulties again retarded more progress. However, the staff continues to give advice to farmers through personal visits.

22. VISITS TO FARMS:

Visits were paid to farms by members of the staff. Particular attention was paid to the inspection of land offered as security for loans for pasture improvement. "Follow up" visits for the purpose of checking progress were also made. In addition to the visits mentioned above, several visits were paid to farms by members of the staff to advise on the care and management of livestock.

23. CREDIT AND MARKETING:

Agricultural credit for pasture improvement was made available to farmers during the year under review. Seventy-eight (78) farmers were assisted by way of loans amounting to \$17,681.68 W. I. C. in cash and \$877.50 in barbed wire. It is gratifying to record that good use is being made of the loans that have been issued.

The Trade and Production Committee, which was appointed by His Excellency the Governor during the year, also serves as the loans board and is responsible for all loans issued.

There are no organized marketing facilities in the Presidency. New markets continue to be explored by the Department.

24. SHOWS:

The annual Agricultural Shows were held at the Sound, Virgin Gorda, East End, Jost Van Dykes and at Long Swamp, Tortola and they were very successful. I am happy to record that farmers are taking a much greater interest in their livestock than in the past; this is in the most part responsible for the success of the shows.

The standard of livestock as compared with previous years, is very much better.

25. STAFF TRAINING COURSES:

No courses were held during the year under review.

26. VISITS:

His Excellency the Governor visited the Department on 8th September.

His Honour the Commissioner visited the Department on several occasions.

Messrs C. A. Taylor and D. A. Gage from Montserrat visited the Presidency for the purpose of getting acquainted with the methods of pasture cultivation and fencing. They also met farmers both in Tortola and on the out-islands and had discussions on the Red Poll—Zebu cattle.

During their stay in the Presidency they visited the Department on several occasions.

Dr. R. von Decken-Luers, the Veterinary Officer of the American Virgin Islands visited the Department on three occasions during the year.

27. ACKNOWLEDGEMENTS:

It is a pleasure to record the thanks and appreciation of the staff of the Department to the farmers and all others who have assisted and co-operated in the work of the Department.

The Department is again indebted to Dr. Rikki von Decken-Luers who has given valuable help in judging livestock and pastures at the shows.

Finally I wish to pay tribute to the staff for their good work during a difficult year.

Section IV:

28. COLONIAL DEVELOPMENT AND WELFARE SCHEMES:

Schemes D—1688 -- Agricultural Credit Fund which provides the sum of \$24,000.00 and D—1689—Purchase of Livestock which provides the sum of \$9,600.00 went into operation early in the year.

Section V:

29. SUMMARY OF LEGISLATION CHANGES:

There has been no change in the legislation dealing with livestock or plants during the year under review.

M. WINTER,
Agricultural Officer.

APPENDIX II.

PRINCIPAL EXPORTS FROM THE BRITISH VIRGIN ISLANDS.

Commodity.	1948		1949		1950		1951		1952		Average value for previous four years.
	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	
Limes		£ 99		£ 54		£ 34		£ 152		£ 85	£
Tomatoes	...	40		7		11		9		24	84
Coconuts	...	77		58		519		603		748	17
Livestock	...	21314		24283		17974		57903		40457	321
Rum	90	28		—		—	20	14		77	30368
Other Agricultural Products*		6374		7084		7219		7219		5773	10
Fish		1890		1700		1614		1609		2220	6974
Total		29822		33186		28079		67509		49384	1703
											39477

*Includes forest products, fruit, vegetables and ground provisions.

APPENDIX III.

VALUE OF IMPORTS OF CERTAIN COMMODITIES INTO THE
BRITISH VIRGIN ISLANDS

in hundreds of pounds sterling (£ 00).

<i>Foodstuffs for Human consumption</i>	1948.	1949.	1950.	1951.	1952.	<i>Average for previous 4 years.</i>
Wheaten Flour	115	107	131	144	126	124
Pulses	2	3	3	4	5	3
Rice	5	8	9	16	16	10
Cornmeal (Maize)	10	9	10	9	12	9
Bread and Biscuits	4	4	6		8	3
Butter and Substitutes	7	9	12	11	12	9
Lard and Substitutes	12	13	16	18	27	15
Edible Oils	1	2	2	2	2	2
Preserved Milk	3	4	6	8	4	5
Cheese	5	6	8	7	7	7
Preserved Meat	8	10	12	13	13	11
Preserved Fish	3	4	6	7	5	5
Fruit and Vegetables	6	9	15	11	11	10
Coffee	2	3	3	3	3	3
Tea	1	1	1	1	1	1
Cocoa	2	2	4	4	4	3
Sugar	53	62	65	77	82	64
Total	239	256	309	371	338	284
Animal Feeding Stuffs	2	2	4	7	8	4
Fertilizers	—	—	—	—	—	—

APPENDIX III

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